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LIBRARY JOURNAL

DECEMBER 1987

A CAHNERS/R.R. BOWKER PUBLICATION

Robotics in the Library

ASIS at 50: the Conference

LIBRARY BUILDINGS 1987

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The entryway and courtyard of the Donald Dungan Branch Library, Costa Mesa, California. Ralph Allen & Partners are the architects of the $1.3 million new building, part of the Orange County PL. Photograph by Carlos Von Frankenberg

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LJ's annual architectural issue paints a statistical portrait of 249 public and 33 academic libraries completed between July 1, 1986 and June 30, 1987

NICK WHEELER

Olin/Chalmers Lib., Kenyon College, Gambier, Ohio

Library Buildings 1987

By Bette-Lee Fox with Ann Burns & Michael Rogers

AN ASTOUNDING thing occurred in the world of public library construction. There were 249 projects completed during the last fiscal year (101 new buildings, 148 additions and renovations), representing the second highest number in the last ten years, and the sixth highest number in the last 20 years. After some relatively lean times as far as building growth is concerned, we have gotten back on track with new and better facilities for public libraries.

This trend isn't slowing down, either. In our third annual "Projects in Progress" feature (page 59), we have information on 586 (505 public, 81 academic) projects that are in various stages of completion. Those projects that were in progress last year that are now completed are listed in the tables with an asterisk (*).

The largest new academic projects are a three-building complex (one being the library) at Saginaw Valley State College, University Center, Michigan ($20 million) and the Texas College of Osteopathic Medicine in Fort Worth ($10.8 million). The largest addition (involving two different levels and additional space on all four sides of the existing structure) is the $29 million project at the University of Tennessee, Knoxville.

The largest new public building is the East Library and Information Center in Colorado Springs, Colorado, costing $10,243,986 and measuring 63,000 square feet. The project was funded entirely through city and library monies. Two other large new buildings are the Huntsville-Madison County Public Library, Alabama, and the Monmouth County Library Headquarters in Manalapan, New Jersey, costing $9.2 million and $7.5 million, respectively. Large addition and renovation projects are the Finkelstein Memorial Library, Spring Valley, New York ($4.4 million) and the Schaumburg Township Public Library, Illinois ($4.8 million).

An emphasis on energy-efficient design, the norm recently, is now coupled with the desire to create beautiful, functional buildings that enhance and harmonize with the natural environment of the area. Use of natural products and materials from the existing landscape allows the libraries to segue into their surroundings, offering visual consistency and intellectual resonance for the patrons.

If you think the number of buildings is phenomenal, hold onto your hats, folks. Funding for the 249 projects amounted to $217 million, the highest in 20 years. State funds exceeded federal funding (one of the few times), contributing 5.9 percent while federal funds were 4.8 percent. Local government and library funds kicked in with a whopping 83.1 percent. (For a detailed analysis of funding trends, see Richard Hall, "Financing Public Library Buildings," p. 73.)

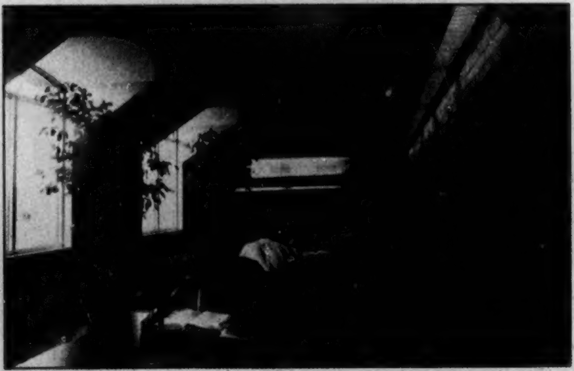
Another year, another substantial contribution to the future of libraries in the United States. With all these libraries, people must be using them. It's a comforting thought, isn't it?

Bette-Lee Fox is Managing Editor; Ann Burns and Michael Rogers are Staff Editors, *LJ*

Academic Library Buildings

College of Saint Mary, Omaha, Neb.

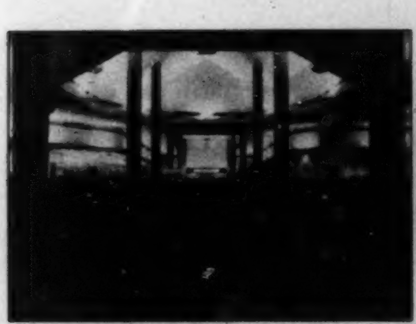
Univ. of North Carolina at Wilmington



Walsh College, Canton, Ohio

Name of Institution	Project Cost	Gross Area	Assignable	Non-Assignable	Sq.Ft. Cost	Construction Cost	Equipment Cost	Book Capacity	Seating Capacity	Architect
Saginaw Valley State College,[1] University Center, Mich.	$20,880,416	67,766	50,136	17,630	n/a	n/a	$498,487	229,328	425	Dow, Howell, Gilmore
* Texas College of Osteopathic Medicine, Fort Worth	10,850,000	110,488	77,640	32,848	75.35	$8,325,000	1,075,920	200,000	649	F & S Partners
* Clarke College, Dubuque, Ia.	6,276,059	57,920	52,700	5,220	85.25	4,937,680	1,042,410	200,000	224	Vickery, Oversat, & Awsumb
* College of Saint Benedict, Saint Joseph, Minn.	5,105,321	55,972	40,664	15,308	77.12	4,316,379	427,359	200,000	600	Warner, Burns, Toan & Lunde
* Texas A&M Univ. at Galveston	4,488,000	25,925	21,912	4,013	104.15	2,700,000	580,000	100,000	200	Rapp Partners
* Cedarville College, Ohio	4,350,000	66,000	60,516	5,484	53.03	3,500,000	850,000	200,000	541	Crider Ptnrs. & J. Lecklider
Huntington College, Ind.	3,176,000	42,250	33,750	8,500	58.46	2,470,000	206,000	150,000	260	Inter Design Group
Daniel Webster College, Nashua, N.H.	2,080,244	23,319	21,428	1,891	80.10	1,867,752	212,492	42,075	233	John A. Carter
College of Saint Mary, Omaha, Neb.	1,500,000	23,000	18,500	4,500	56.39	1,297,000	203,000	100,000	220	Barry Ward
Science & Eng. Resource Ctr., Rutgers University, Piscataway, N.J.	n/a	n/a	5,987	n/a	n/a	n/a	200,000	2,500	238	Hillier Group

[1] Library part of 291,000 gross square foot, three-building complex



Clemens Lib., College of St. Benedict, St. Joseph, Minn.

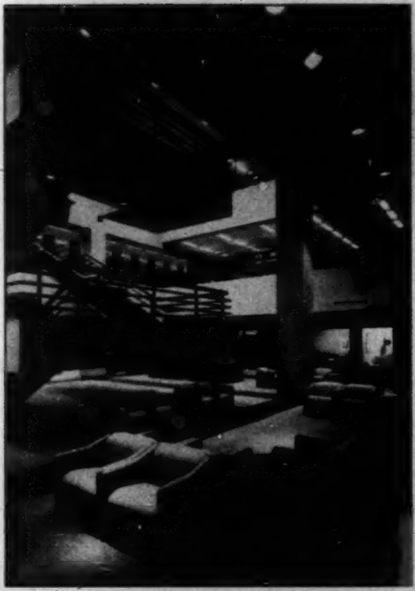
Daniel Webster College Library, Nashua, N.H.

Jack K. Williams Lib., Texas A&M University at Galveston

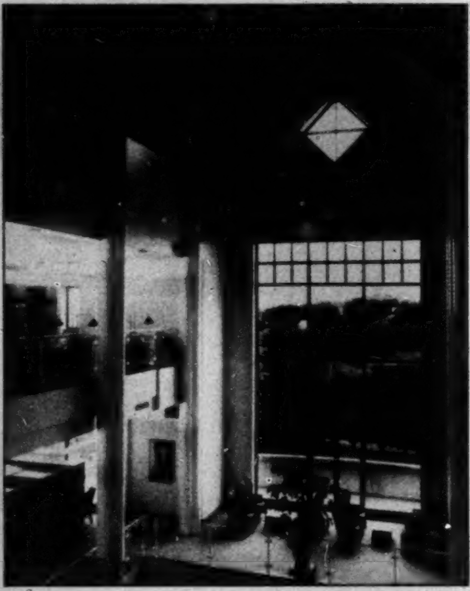
Guggenheim Memorial Lib., Monmouth Coll., W. Long Branch, N.J.

John C. Hodges Library, University of Tennessee, Knoxville

Name of Institution		Project Cost	Gross Area	Assignable	Non-Assignable	Sq.Ft. Cost	Building Cost	Equipment Cost	Book Capacity	Seating Capacity	Architect
University of Delaware, Newark	Total	$15,000,000	289,000	227,000	62,000	$51.90	$15,000,000	0	n/a	3,100	Richter, Cornbrooks, Gribble
	New	n/a	132,000	n/a	n/a	n/a	n/a	0	n/a	n/a	
	Renovated	n/a	157,000	n/a	n/a	n/a	n/a	0	n/a	n/a	
Iowa State University, Ames	Total	12,183,000	332,255	241,023	91,232	25.71	8,543,800	$2,500,000	1,850,000	2,676	Charles Herbert & Assocs.
	New	8,500,000	106,037	71,102	34,935	55.89	5,926,800	1,500,000	338,099	757	
	Renovated	3,683,000	226,218	169,921	56,297	11.57	2,617,000	1,000,000	1,513,000	1,919	
Kenyon College, Gambier, Ohio	Total	6,750,000	100,110	71,589	28,521	49.79	4,984,200	1,039,798	480,000	534	Shepley, Bulfinch . . .
	New	5,500,000	53,520	38,976	14,544	79.26	4,242,200	943,398	250,000	310	
	Renovated	1,250,000	46,590	32,613	13,977	15.93	742,000	96,400	230,000	224	
* University of North Carolina at Wilmington	Total	n/a	163,500	130,800	32,700	39.91	6,526,071	359,000	475,000	1,000	Boney Architects
	New	n/a	93,500	74,800	18,700	64.15	5,998,571	n/a	n/a	600	
	Renovated	n/a	70,000	56,000	14,000	7.53	527,500	n/a	n/a	400	
University of the Pacific, Stockton, Calif.	Total	6,200,000	60,000	n/a	n/a	84.69	5,081,340	380,000	60,000	700	Brandenburger Assocs.
	New	4,700,000	30,000	n/a	n/a	131.10	3,932,924	297,150	45,000	525	
	Renovated	1,500,000	30,000	n/a	n/a	38.28	1,148,416	82,850	15,000	175	
* Lafayette College, Easton, Pa.	Total	4,600,000	66,458	57,087	9,371	55.75	3,705,000	135,000	441,000	526	Shepley Bulfinch . . .
	New	3,458,000	18,999	16,301	2,698	142.37	2,705,000	n/a	n/a	209	
	Renovated	1,142,000	47,459	40,786	6,673	21.07	1,000,000	n/a	n/a	317	
Saint Leo College, Fla.	Total	1,851,915	38,400	31,280	7,120	37.90	1,455,442	263,915	150,000	390	Schweizer Assocs.
	New	n/a	23,700	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
	Renovated	n/a	14,700	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
* Walsh College, Canton, Ohio	Total	1,116,079	18,916	17,024	1,892	50.42	953,744	162,335	150,000	236	J.A. Bower
	New	276,599	5,843	5,743	100	45.63	266,599	10,000	26,000	82	
	Renovated	839,480	13,073	11,281	1,792	52.56	687,145	152,335	124,000	154	
McNeese State University, Lake Charles, La.	Total	801,234	80,517	40,517	40,000	7.22	581,200	105,034	28,500	870	Architecture Six
	New	801,234	80,000	40,000	40,000	n/a	n/a	105,034	28,500	850	
	Renovated	0	517	517	0	n/a	n/a	0	0	20	
Mercy College Libraries, Dobbs Ferry, N.Y.	Total	618,700	6,640	6,100	540	82.38	547,500	28,603	23,000	110	Lothrop Assocs.
	New	598,700	5,600	5,200	400	94.55	529,500	28,603	23,000	80	
	Renovated	20,000	1,040	900	140	17.31	18,000	0	0	30	



Health Sciences Lib., Texas Coll. of Osteopathic Medicine, Ft. Worth



PAUL ROBERTS

Clarke College, Dubuque, Iowa

Name of Institution	Project Cost	Gross Area	Assignable	Non-Assignable	Sq.Ft. Cost	Construction Cost	Equipment Cost	Book Capacity	Seating Capacity	Architect
* University of Tennessee, Knoxville	$29,000,000	360,000	262,000	98,000	$69.44	$25,000,000	$4,000,000	1,900,000	3,500	Library Assoc. Archs.
Grambling State University, La.	n/a	26,650	17,241	9,409	80.45	2,144,000	133,378	n/a	n/a	Rice W. Gregory III

Name of Institution	Project Cost	Gross Area	Assignable	Non-Assignable	Sq.Ft. Cost	Construction Cost	Equipment Cost	Book Capacity	Seating Capacity	Architect
Univ. of North Carolina at Chapel Hill	$5,477,500	186,228	n/a	n/a	$26.49	$4,933,639	$150,000	n/a	n/a	Polier Ballard Assocs.
Bapst Library & Burns Library of Special Collections, Boston Coll., Chestnut Hill, Mass.	n/a	60,000	44,000	16,000	80.00	4,800,000	n/a	200,000	525	Architects Collab.
College of St. Scholastica, Duluth, Minn.	2,600,220	n/a	20,817	n/a	n/a	1,600,000	n/a	150,000	275	William Moser
* Avery Fisher Ctr. for Music & Media, Bobst Lib., New York University	n/a	14,000	12,000	2,000	30.71	430,000	625,500	0	316	Jane Yu
Stanford University	982,000	10,315	9,080	1,235	27.53	284,000	618,000	350,000	10	none
Swain Library of Chemistry/Chemical Engineering, Stanford University	595,000	7,980	5,510	2,470	41.98	335,000	60,000	55,000	70	Arthur Craig Steinman
Guggenheim Memorial Library,[1] Monmouth College, West Long Branch, N.J.	299,999	17,694	0	17,694	16.95	299,999	0	0	0	none
Indiana University, Bloomington	208,696	6,610	6,610	0	24.31	160,712	47,984	54,260	73	Univ. Physical Facilties.
St. Lawrence Univ., Canton, N.Y.	135,837	2,520	2,304	216	21.52	54,230	81,607	44,608	10	St. Lawrence Univ. . . .
Northern Illinois Univ., DeKalb	118,416	327,273	222,996	104,277	00.17	55,000	53,416	1,300,000	2,200	none
Butler University, Indianapolis	75,000	1,394	n/a	n/a	70.70	98,553	n/a	n/a	n/a	none

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[1] Restoration of outside ornamental balustrades, cornices, windows, walls.

Public Library Buildings

Carnegie Library, Ballinger, Tex.

Symbol Code: B—Branch Library; BS—Branch & System Headquarters; M—Main Library; MS—Main & Systems Headquarters; S—System Headquarters; n/a—not available

Community	Pop. in M	Code	Project Cost	Const. Cost	Gross Sq. Ft.	Sq.Ft. Cost	Equip. Cost	Site Cost	Other Costs	Volumes	Reader Seats	Federal Funds	State Funds	Local Funds	Gift Funds	Architect
ALABAMA																
* Carrollton	1	M	$167,957	$144,299	2,700	$53.44	0	$15,000	$8,658	10,000	14	$75,000	0	$3,200	$89,757	James H. Fitts III
* Huntsville[1]	211	M	9,254,647	7,537,333	123,000	61.28	1,165,000	Owned	552,314	600,000	933	0	$154,400	8,155,000	945,247	Jones & Herrin
ARIZONA																
Flagstaff	85	MS	4,032,300	3,100,000	34,000	91.18	189,300	Owned	743,000	150,000	197	0	0	4,000,000	32,300	Snowdon & Hopkins
* Glendale	130	MS	7,415,860	5,400,860	64,166	84.17	1,170,000	75,000	770,000	250,000	250	0	0	7,415,860	0	J. Barry Moffitt & Assocs.
* Mesa	54	B	1,707,881	1,427,535	15,152	94.21	176,462	Owned	103,884	70,000	148	0	0	1,707,881	0	Nelson Boren Architects
* Scottsdale	115	B	4,178,000	2,968,619	31,850	93.21	623,474	Owned	585,907	60,000	250	0	0	4,178,000	0	Dean/Hunt/Krueger
CALIFORNIA																
Calexico	18	M	1,339,398	1,200,646	12,845	93.47	50,752	Owned	88,000	60,000	76	800,000	8,994	530,404	0	Coup & Smith
* Costa Mesa[2]	86	B	1,361,000	1,200,000	7,800	153.87	99,000	Owned	62,000	40,000	63	0	0	1,361,000	0	Ralph Allen & Partners
Fallbrook[3]	27	B	809,424	608,341	8,000	76.04	75,878	Owned	125,205	50,000	52	40,000	0	444,424	325,000	San Diego Cty. Gen. Servs.
Moreno Valley	70	B	1,872,592	1,167,489	16,500	70.76	210,000	Owned	495,103	50,000	126	647,906	0	1,224,686	0	John F. Outcault
* Ontario	35	B	n/a	n/a	1,950	n/a	81,703	Leased	n/a	20,000	20	0	0	250,340	0	not reported
* San Diego	48	B	1,866,134	1,114,830	10,400	107.19	416,675	Owned	334,629	35,000	75	286,000	0	1,580,134	0	Wally Gordon
COLORADO																
Colorado Spgs.[4]	310	M	10,243,986	6,073,417	63,000	96.40	2,861,661	621,178	687,730	200,000	200	0	0	10,243,986	0	Muir & Associates
* Telluride[5]	2	M	550,000	375,000	4,200	89.28	50,000	75,000	50,000	25,000	50	0	0	475,000	75,000	Gibson & Reno
FLORIDA																
Holiday	50	B	593,400	438,400	10,000	43.84	125,000	Owned	30,000	40,000	60	200,000	0	393,400	0	Reynolds, Smith & Hills
GEORGIA																
Augusta	14	B	885,613	642,127	10,043	63.94	116,515	Owned	126,971	38,000	n/a	0	641,770	93,843	150,000	Nicholas Dickinson
Byron	7	B	273,858	201,118	4,600	43.72	48,000	Owned	24,740	14,000	28	0	171,429	50,050	56,834	Brittain, Thompson & Bray
* Cave Spring[6]	4	B	315,779	230,647	4,300	53.64	48,683	15,000	21,449	20,000	25	0	262,116	52,113	1,550	Buckley & Associates
* Cochran	11	M	580,854	407,708	7,200	56.63	80,854	25,000	67,292	50,000	42	95,854	306,667	30,000	148,333	W.S. Ledbetter
* Cornelia	15	B	652,658	438,675	7,500	58.49	113,515	47,693	52,775	40,000	60	0	519,977	104,000	28,681	Bailey Associates
Decatur[7]	n/a	B	105,000	103,553	200	517.77	0	0	1,447	5,000	0	52,500	0	0	52,500	Allegret & Associates
Gordon	6	B	271,343	187,210	3,200	58.50	61,000	Owned	23,133	11,000	51	0	242,743	28,600	0	Brittain, Thompson & Bray
Irwinton	6	B	271,343	187,209	3,200	58.50	54,000	Owned	30,134	11,000	51	0	242,743	28,600	0	Brittain, Thompson & Bray
Lakeland	6	B	333,638	251,461	4,500	55.88	40,379	20,000	21,798	17,586	39	0	289,797	23,841	20,000	Thomson & Associates
Lincolnton	7	M	382,429	261,621	5,000	52.32	42,411	50,000	28,397	18,200	37	0	289,286	93,143	0	Nicholas Dickinson
* Milledgeville	25	B	1,560,219	1,193,334	18,900	63.14	182,549	76,000	108,336	70,000	219	0	654,750	852,540	52,929	Holliday, Couch . . .
* Nashville	15	B	509,000	393,750	7,998	49.23	75,350	Owned	39,900	40,200	56	0	456,000	3,000	50,000	W. Conner Thomson
* Peachtree City	15	B	882,203	708,607	10,000	70.86	108,509	Owned	65,087	40,000	80	0	688,095	194,108	0	Lockwood Greene Engs.
* Pembroke	6	B	368,240	263,157	5,442	48.36	63,020	15,000	27,063	17,290	47	0	315,090	53,150	0	John A. Tuten & Associates
* Rossville	15	B	547,264	383,085	8,513	45.00	103,980	Owned	60,199	42,000	47	0	481,511	65,753	0	Kirkman Associates, Inc.
ILLINOIS																
* Warrenville[8]	10	M	1,037,390	719,318	9,986	72.03	144,595	Owned	173,477	18,984	67	0	250,000	787,390	0	Charles Newman & Assocs.
* Wauconda	12	M	1,218,200	1,030,900	10,000	103.09	65,000	25,300	97,000	90,000	48	0	530,000	688,200	0	O'Donnell, Wicklund . . .
INDIANA																
* Charlestown	38	M	1,200,000	900,000	14,600	61.64	90,000	30,000	180,000	125,000	95	0	0	1,200,000	0	Walker/Rosenbarger
Elkhart	20	B	394,238	241,000	4,096	58.84	78,370	55,000	19,868	21,000	32	0	0	338,238	56,000	Borger Jones Leedy
* Huntington[9]	20	M	1,857,242	1,431,890	18,348	78.04	178,287	74,550	172,515	85,000	123	235,000	0	1,590,292	31,950	J. Parke Randall
Mt. Vernon	20	M	2,793,000	1,471,800	22,000	66.90	663,260	270,000	387,940	143,000	47	0	0	2,850,000	0	John L. Luttig
* Noblesville	34	M	4,607,668	3,031,093	46,730	64.86	378,548	151,186	1,046,841	170,000	175	0	0	4,607,668	0	Everett I. Brown Co.
IOWA																
Cleghorn	1	M	131,780	92,080	3,168	29.01	12,200	20,000	7,500	12,000	21	45,000	0	46,780	40,000	Huntington Harmsen Ewing
LOUISIANA																
Covington	27	B	1,826,795	1,120,000	16,500	67.88	308,340	320,000	78,455	103,500	207	0	0	1,826,795	0	N–Y Associates
* Covington	3	B	207,210	137,500	2,000	68.75	33,829	25,000	10,881	12,500	20	0	0	207,210	0	Perez & Associates
* Jefferson	40	M	881,744	559,212	7,136	78.36	148,819	126,500	47,213	35,000	73	0	0	881,744	0	Harold E. Piqué Jr.
* Thibodaux[10]	16	M	528,000	343,000	13,000	26.38	0	185,000	0	35,000	46	0	0	0	528,000	Thomas W. Papazoglakis
MARYLAND																
* District Hgts.	100	B	2,106,608	1,688,204	24,000	85.60	152,352	213,918	52,134	100,000	100	0	0	2,106,608	0	Watkins–Puskar Partnership
* Havre de Grace	11	B	845,360	575,610	8,420	68.36	107,480	130,000	32,270	30,000	53	150,000	0	695,360	0	Paul Albright
* Severn	20	B	1,641,851	1,403,670	12,000	116.97	82,324	95,000	60,857	75,000	55	0	0	1,641,851	0	Lapicki/Smith

Community	Pop. in M	Code	Project Cost	Const. Cost	Gross Sq. Ft.	Sq.Ft. Cost	Equip. Cost	Site Cost	Other Costs	Volumes	Reader Seats	Federal Funds	State Funds	Local Funds	Gift Funds	Architect
MASSACHUSETTS																
Hull	10	M	126,100	92,100	800	115.13	16,000	12,000	6,000	12,000	16	0	0	41,100	85,000	Gale Engineering
* Mashpee	7	M	604,000	480,000	5,200	92.31	84,000	Owned	40,000	25,000	44	100,000	0	500,000	4,000	Gaffney Architects
MINNESOTA																
Woodbury	20	BS	1,470,000	1,300,000	20,000	65.00	70,000	Owned	100,000	60,000	50	0	0	1,470,000	0	Shank, Kleineman, DeZeler
MISSISSIPPI																
* Pascagoula	142	MS	3,615,880	2,624,352	41,000	64.01	809,315	Owned	182,213	80,000	130	115,196	0	3,500,684	0	Slaughter & Allred
NEBRASKA																
* Gordon	10	M	177,612	140,000	3,000	46.67	20,937	4,000	12,675	12,000	30	0	66,634	0	110,978	Hoskins, Western . . .
NEVADA																
Indian Springs	1	B	60,000	31,000	1,200	25.83	29,000	Leased	0	5,000	16	0	0	60,000	0	Leo Borns
Mt. Charleston	1	B	406,921	257,672	2,600	99.10	37,839	75,000	36,410	5,400	16	0	186,386	220,535	0	Erol Hill Architect
* Overton	9	B	466,452	367,193	4,600	79.82	52,111	15,000	32,148	20,000	30	50,000	201,339	200,122	15,000	Tate & Snyder
Sandy Valley	1	B	60,000	31,000	1,200	25.83	29,000	Leased	0	5,000	16	0	0	60,000	0	Ken Pettitt
NEW JERSEY																
Manalapan	325	MS	7,500,000	6,732,000	85,000	79.20	300,000	Owned	468,000	700,000	260	0	0	7,500,000	0	Faridy,Thorne/Kaplan,Gaunt
NEW YORK																
Alden[11]	1	B	893,988	n/a	7,600	n/a	116,000	Owned	n/a	24,000	72	0	0	893,988	0	Milstein & Wittek
Bellport	21	M	2,014,148	1,247,611	12,000	103.97	204,879	249,442	312,216	73,000	87	0	18,119	1,965,104	30,925	Donald Denis
Buffalo	1	B	380,000	n/a	2,500	n/a	38,718	Owned	n/a	15,000	26	0	0	380,000	0	Cannon Design
Buffalo	24	B	1,068,946	767,253	7,862	97.59	136,297	111,688	53,708	24,000	58	70,000	112,649	886,297	0	Scaffidi & Moore
Hogansburg[12]	8	M	358,037	238,667	8,000	29.83	43,300	64,070	12,000	50,000	72	220,450	25,000	70,587	42,000	George W. Rosenvold
Little Neck	17	B	1,785,000	1,700,000	6,000	283.33	85,000	Owned	0	42,000	32	0	0	1,785,000	0	Abraham Geller & Assocs.
Norwood	2	M	287,770	217,857	3,800	57.33	24,049	25,168	20,696	25,000	n/a	0	13,416	274,354	0	Quentin Reutershan
* Rochester	17	B	382,256	328,991	3,800	86.58	37,357	Owned	15,908	n/a	n/a	0	127,050	255,206	0	David H. Wulff
Schenectady	15	B	218,218	179,218	3,000	59.74	12,000	27,000	0	20,000	50	0	61,418	156,800	0	Richard Bliss
Watkins Glen	8	M	529,000	440,000	5,180	84.94	34,000	5,000	50,000	25,000	53	0	156,030	6,000	366,970	Anne Hersh
NORTH CAROLINA																
Rockwell	13	B	496,608	374,212	7,000	53.46	45,613	19,780	30,003	13,000	30	150,000	34,771	190,102	94,735	James F. Kluttz
Winston Salem	25	B	795,000	660,000	9,800	67.35	70,000	Owned	65,000	40,000	50	0	0	795,000	0	Calloway, Johnson, & Moore
OHIO																
* Bluffton[13]	6	M	567,977	417,407	7,000	59.63	44,532	68,254	37,784	35,000	30	262,377	0	139,272	166,328	Bruce D. Wobser
Ottawa	33	M	1,340,469	1,144,726	19,501	58.70	111,810	Owned	83,933	65,000	103	0	0	1,320,469	20,000	Bruce D. Wobser
* Steubenville	54	B	1,493,864	966,776	9,060	106.71	105,235	322,500	99,353	33,000	117	199,792	0	1,053,072	241,000	Michael T. Tabeling
OKLAHOMA																
Coweta	7	M	195,000	145,000	3,500	41.43	25,000	20,000	5,000	17,000	32	50,000	15,000	130,000	0	Architectural Plus
* Midwest City	58	B	3,006,480	2,376,832	36,200	65.66	349,105	Leased	280,543	90,000	240	0	0	2,991,480	15,000	RGDC, Inc.
* Noble	5	B	502,985	331,765	5,200	63.80	51,008	72,007	48,205	20,000	30	125,000	28,362	234,293	115,330	Jack Nusbaum
* Tulsa	16	B	384,927	332,131	5,300	62.67	23,152	Owned	29,644	40,000	38	125,000	0	259,927	0	Matrix
OREGON																
* Manzanita	2	B	203,500	113,000	2,000	56.50	17,500	55,000	18,000	10,000	22	98,265	0	0	105,235	Tom Bender
Yachats	1	M	38,220	34,018	2,000	17.01	4,202	Owned	0	9,500	10	17,500	0	8,020	12,700	R.H. Bibler
TEXAS																
* Arlington	25	B	884,300	565,151	7,558	74.78	47,649	240,000	31,500	32,410	68	0	0	884,300	0	Jerry C. Davis
* Corrigan	6	M	445,389	299,849	5,400	55.53	31,400	65,000	49,140	50,000	35	0	100,000	100,000	245,389	Marsellos & Scott
Fort Worth[14]	130	B	2,780,562	2,320,968	25,000	92.84	244,759	55,949	158,886	150,000	108	0	0	2,780,562	0	CRSS, Inc.
* Fort Worth	120	B	2,760,000	1,986,149	26,385	75.28	350,000	59,306	364,545	150,000	150	0	0	2,760,000	0	CRS Sirrine
* Longview	94	M	3,926,063	2,267,021	35,000	64.77	1,107,733	223,750	327,559	140,503	111	0	0	2,818,330	1,107,733	Allen–Buie Partnership
New Caney	41	B	435,653	281,000	6,400	43.91	44,000	95,000	15,653	55,000	65	100,000	0	335,653	0	F.D. Freeman Associates
Palestine	46	M	1,071,882	827,984	15,664	52.86	99,926	15,000	128,972	60,000	65	200,000	0	200,000	671,882	Morgan, O'Neal . . .
Quanah	7	M	432,528	356,259	4,500	79.17	23,692	25,000	27,577	23,500	32	0	0	0	432,528	Albert Komatsu & Assocs.
UTAH																
Roosevelt	5	M	n/a	249,000	n/a	n/a	n/a	Owned	n/a	n/a	n/a	331,469	0	217,531	0	Richardson Associates
VIRGINIA																
* Bluefield	15	B	568,003	346,770	7,000	49.54	75,608	49,000	78,625	50,000	94	0	41,571	522,967	3,465	Echols-Sperger & Assocs.
* Burke[15]	60	B	3,472,900	2,615,189	25,000	104.61	430,601	180,793	246,317	125,000	211	0	0	3,472,900	0	Easen Cross
Christianburg	32	MS	918,854	771,845	15,100	51.12	60,700	34,000	52,309	71,000	100	219,128	13,700	668,026	18,000	Rogers & Reynolds
* Hampton	122	M	5,388,478	4,369,767	53,000	82.45	641,669	Owned	377,042	300,000	265	0	0	5,320,606	67,872	Rancorn Wildman . . .
Haymarket	7	B	222,076	179,076	2,000	89.54	35,000	Leased	8,000	12,500	5	0	0	222,076	0	Parker/Reinhart Assocs.
Manassas	7	B	214,076	171,076	2,000	85.54	35,000	Leased	8,000	12,500	5	0	0	214,076	0	Parker/Reinhart Assocs.
Monterey	3	M	138,589	116,089	3,200	36.28	8,000	14,000	500	15,000	20	0	0	0	138,589	not reported
WASHINGTON																
Mill Creek	20	B	583,651	464,043	3,800	122.12	41,853	Owned	77,755	21,800	28	182,984	0	390,667	10,000	Elaine LaTourell
Sultan	10	M	130,000	90,000	2,438	36.92	26,500	Owned	13,500	12,900	22	130,000	0	0	0	Lewis • Nelson Assocs.
WEST VIRGINIA																
White Sulphur Spgs.	3	M	455,824	374,907	4,600	81.50	40,585	Owned	40,332	20,000	24	144,940	3,868	100,000	207,016	Wilson & Goff Architects
WISCONSIN																
* Hillsboro	4	M	216,000	175,000	3,440	50.87	31,000	Owned	10,000	14,000	34	68,000	0	106,000	42,000	Richard Thern
* Menomonie	13	M	1,311,796	1,009,892	15,000	67.33	142,852	70,000	89,052	40,000	85	125,000	0	1,186,796	0	John H. Howe & Assocs.
* Oconomowoc	24	M	1,900,000	1,500,000	24,000	62.50	250,000	Owned	150,000	90,000	70	0	0	1,800,000	100,000	Durant Architects
Omro	3	M	204,151	161,416	3,958	40.78	4,215	14,727	23,793	10,000	20	44,737	0	134,414	25,000	Yarbro-Kempinger
WYOMING																
* Baggs	2	B	290,773	223,505	2,990	74.75	37,945	3,900	25,423	9,500	12	0	0	286,873	3,900	Dehnert/Richardson/Assocs.
Rock Springs	25	B	2,162,489	1,868,825	28,000	66.74	243,598	Owned	50,066	75,000	120	0	0	2,162,489	0	George Harokopis

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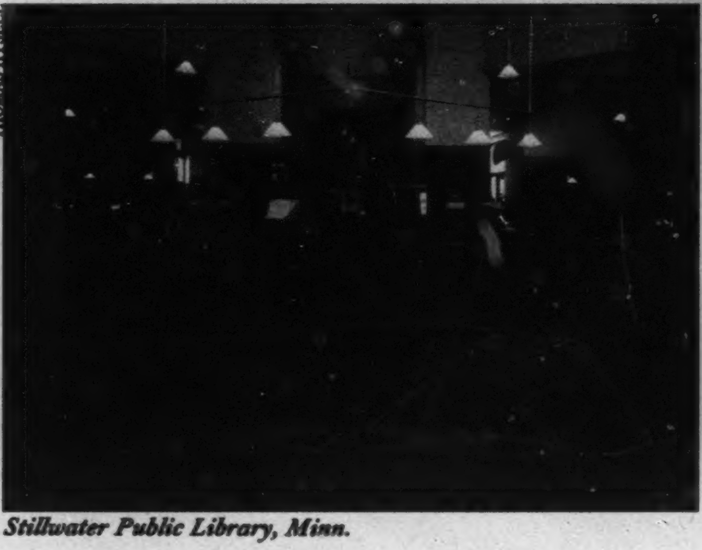
ALABAMA																
Autaugaville	2	B	$5,000	$2,600	1,260	$2.06	$1,200	Leased	$1,200	n/a	4	0	0	$3,000	$2,000	not reported
* Eufaula	25	M	81,751	76,342	6,910	11.04	n/a	Owned	5,409	13,000	15	$36,508	0	27,033	18,210	Taylor/Hamrick
Hueytown	17	M	130,000	99,750	2,000	49.88	22,250	Owned	8,000	25,000	22	0	$67,164	62,836	0	Walter Anderson
* Monroeville	25	M	226,750	184,400	4,740	38.90	30,600	Owned	11,750	1,500	50	75,000	0	0	151,750	Raymond A. Broadus
* Oneonta	37	M	50,095	37,250	904	41.21	7,882	Owned	4,963	5,500	0	25,000	0	18,425	6,670	William W. Arnold
CALIFORNIA																
Glendale	n/a	B	1,719,300	950,000	11,200	84.82	269,700	Owned	330,000	60,000	95	283,800	0	1,435,500	0	Charles Walton & Assocs.
Inverness	1	B	250,350	154,000	n/a	n/a	33,650	62,700	n/a	4,000	24	6,350	0	39,000	215,000	Theodore T. Boutmy
Livermore	5	B	175,500	150,000	2,400	62.50	25,500	Owned	n/a	12,000	16	0	0	150,500	25,000	Associated Professions
Pasadena	128	M	2,075,000	1,303,765	8,000	162.97	609,362	Owned	161,873	200,000	n/a	574,400	0	1,500,600	0	Taylor & Assocs.
Salinas	n/a	S	68,500	61,000	9,000	6.78	2,500	Owned	5,000	180,000	8	0	0	68,500	0	Belli/Christensen
Tracy	33	B	1,258,600	1,019,612	16,911	60.29	155,884	Owned	173,104	80,000	125	655,000	0	531,600	162,000	Morris & Wenell, Inc.
COLORADO																
Yampa	1	M	34,183	26,738	900	29.70	730	0	137	5000	30	11,308	0	22,876	0	Rex Petersen
DELAWARE																
Dover	25	M	714,810	618,785	17,090	36.20	34,830	Owned	61,195	60,000	117	287,446	0	382,338	45,026	Calvin Clendaniel
FLORIDA																
Ormond Beach	45	M	286,289	206,758	5,362	38.56	61,031	Owned	18,500	70,000	95	0	100,000	167,789	0	Gerken, Upham, Smith, Inc.
Tarpon Springs	25	M	397,407	335,884	10,030	33.49	41,523	Owned	20,000	40,000	85	0	75,000	177,092	131,100	Edward C. Hoffman
GEORGIA																
* Commerce	7	B	437,067	370,000	9,000	41.11	26,000	Owned	41,067	50,200	800	0	393,360	43,707	0	Jacobs, Inc.
* Decatur	96	B	124,000	112,840	7,276	15.51	0	Owned	11,160	45,000	56	62,000	0	62,000	0	Christian/Foley
* Hampton	3	B	210,602	181,934	2,462	73.90	16,240	Owned	12,428	25,000	28	0	180,000	1,000	29,602	Spangler & Manley
* Lithonia	5	B	95,000	n/a	2,400	n/a	95,000	0	n/a	22,250	25	0	0	95,000	0	not reported
* Ocilla	10	B	410,000	310,200	7,080	43.81	67,276	Owned	32,524	26,100	48	0	369,000	3,000	38,000	W. Conner Thomson
* Richmond Hill	6	B	267,987	184,777	5,528	33.43	45,881	12,000	25,329	17,290	47	0	227,147	40,840	0	John A. Tuten
* Watkinsville	19	B	530,467	371,903	12,100	30.74	95,138	Owned	63,426	35,000	105	0	469,033	0	61,434	L. Miles Sheffer
IDAHO																
* Ketchum	25	M	642,041	522,000	8,500	61.41	54,337	Owned	65,704	n/a	n/a	0	0	0	642,041	Dates Fryberger
ILLINOIS																
* Gurnee	26	M	813,437	747,206	21,015	35.55	6,500	Owned	59,731	101,000	224	0	250,000	563,437	0	Thomas F. Bleck
* Hillside	9	M	243,510	213,825	4,886	43.76	0	Owned	29,685	n/a	n/a	0	94,164	149,346	0	James C. Jankowski
* Jerseyville	8	M	600,000	450,200	10,100	44.57	71,000	Owned	78,800	35,000	45	200,022	208,480	154,000	10,000	Watwood & Heavener, Inc.
* Minonk	2	M	120,613	70,005	7,179	9.75	24,000	8,500	18,108	35,000	28	0	48,602	0	48,602	Paul Young
* Palos Hills	30	M	692,194	530,871	6,191	85.75	31,167	Owned	130,156	24,908	127	0	48,275	643,919	0	LaRoi Architects Ltd.
Riverside	9	M	1,800,000	1,511,000	16,596	91.04	47,000	Owned	242,000	80,000	92	0	0	1,755,000	45,000	Frye Gillan Molinaro, Ltd.
Schaumburg	120	M	4,784,877	3,804,101	80,000	47.55	427,876	Owned	552,900	350,000	460	0	0	4,784,877	0	O'Donnell Wicklund . . .
* Woodridge	25	M	86,863	77,943	n/a	n/a	0	0	8,920	n/a	n/a	0	34,745	52,118	0	Cody Braun
INDIANA																
* Scottsburg	20	M	678,957	537,863	8,062	66.71	64,613	Owned	76,481	53,500	62	265,000	0	344,767	69,190	J. Parke Randall
IOWA																
Hampton	5	M	183,245	168,516	10,000	16.85	0	Owned	14,729	n/a	n/a	93,979	0	57,250	38,016	Neumon Monson Architects
Nashua	2	M	227,407	180,000	3,200	56.25	32,407	Owned	15,000	15,500	18	112,100	0	2,407	112,500	Neumon Monson Architects
KANSAS																
* Leavenworth	57	M	2,302,800	1,400,000	25,000	56.00	255,800	515,000	132,000	100,000	125	10,000	0	2,292,800	0	Peters, Kubota & Glenn
KENTUCKY																
Lebanon Junction	4	B	48,000	6,000	1,200	5.00	5,000	37,000	0	8,000	15	0	0	39,000	9,000	none
LOUISIANA																
Abita Springs	3	B	26,394	23,735	1,600	14.83	0	Owned	2,659	8,000	25	0	0	26,394	0	Ashley Inabnet
Bush	2	B	26,394	23,735	1,600	14.83	0	0	2,659	12,500	n/a	0	0	21,600	0	Ashley Inabnet
Lacombe	6	B	25,152	22,493	1,600	14.06	0	Owned	2,659	8,000	25	0	0	25,152	0	Perez Assocs.
* Madisonville	3	B	219,378	189,479	3,000	63.16	24,468	145,000	16,432	12,500	0	0	0	219,378	0	Perez Assocs.
* Mandeville	13	B	493,918	390,600	5,000	78.12	76,000	0	27,318	38,200	71	0	0	442,800	0	Ronald Kilcrease
* Pearl River	2	B	240,243	137,500	2,000	68.75	25,362	66,500	10,881	12,500	20	0	0	204,000	0	Ashley Inabnet
MARYLAND																
* Annapolis	38	B	514,078	477,952	2,532	188.76	10,000	0	26,126	n/a	n/a	0	0	514,078	0	Fourth St. Design Studio
* Ellicott City	50	B	3,010,000	2,325,000	23,000	101.11	294,000	79,000	312,000	125,000	125	0	0	3,101,000	0	Bernard Madison
MASSACHUSETTS																
* Bourne	15	M	1,019,000	794,000	15,875	50.01	130,000	0	95,000	75,000	100	165,000	55,000	669,000	130,000	A. Anthony Tappe & Assocs.
Salem	38	M	1,751,305	1,712,805	11,900	143.93	0	Owned	38,500	185,000	127	253,973	0	1,497,332	0	R. Farley & J. Ballou
MICHIGAN																
Romeo	16	M	90,450	63,176	5,800	10.89	19,803	Owned	7,471	50,000	53	28,575	0	61,875	0	Merritt & McCallum
MINNESOTA																
Coon Rapids	30	B	758,280	568,091	10,500	54.10	102,345	Owned	87,844	48,000	80	0	0	758,280	0	Glen Lindberg
* Stillwater	20	M	860,674	626,248	13,136	46.67	95,000	Owned	139,426	42,000	85	0	0	816,708	78,831	J. Scherer & B. Petit
MISSISSIPPI																
* Okolona	3	B	175,000	144,310	2,530	57.03	20,383	Owned	10,307	10,200	28	75,000	25,000	75,000	0	Jim Johnson
MISSOURI																
Hannibal	38	M	718,779	637,434	15,426	41.32	26,985	Owned	54,360	100,000	61	69,000	0	199,799	450,000	Jim Krewson

LIBRARY BUILDINGS 1987

Southside Library, Winston-Salem, N.C.

Glendale Public Library, Calif.


THOMAS HYSELL

Stillwater Public Library, Minn.

Riverside Branch Library, Buffalo, N.Y.

Community	Pop. in M	Code	Project Cost	Const. Cost	Gross Sq. Ft.	Sq.Ft. Cost	Equip. Cost	Site Cost	Other Costs	Volumes	Reader Seats	Federal Funds	State Funds	Local Funds	Gift Funds	Architect
MONTANA																
Ennis	1	M	79,678	57,900	1,500	38.60	21,778	Owned	5,500	10,000	20	28,195	0	27,488	26,147	K. Don Taylor
* Superior	4	M	8,870	8,413	n/a	n/a	0	Owned	457	n/a	n/a	6,270	0	2,600	0	Crossman, Whitney, Griffin
NEVADA																
* Las Vegas	135	M	1,620,436	1,002,019	19,000	52.74	105,042	400,000	113,374	202,000	265	0	754,943	865,493	0	Robert A. Fielden
NEW HAMPSHIRE																
Amherst	9	M	1,100,000	859,000	13,270	64.73	105,000	30,000	106,000	50,000	75	36,500	0	900,000	163,500	Frank Adams
Milford	11	M	1,075,000	873,000	13,500	64.67	125,000	Owned	77,000	55,000	65	50,000	0	950,000	75,000	John Jordon
NEW MEXICO																
* Alamogordo	45	M	871,042	745,948	20,764	35.93	60,303	Owned	64,792	100,000	115	66,746	0	795,621	8.675	John Reed
Eunice	3	M	125,685	117,663	4,683	25.12	0	Owned	8022	35,000	45	57,000	0	68,685	0	Killian & Assoc.
* Hobbs	35	M	2,100,000	1,700,000	40,500	41.97	100,000	Owned	300,000	180,000	130	0	0	2,100,000	0	W.T. Harris & Assocs.
* Santa Fe	45	M	4,012,531	3,013,960	35,900	83.95	573,535	Owned	425,036	125,000	177	66,746	0	3,927,250	18,535	Kestutis Germanas, Inc.
NEW YORK																
Akron	7	M	20,000	19,400	3,988	4.86	0	Owned	600	14,000	46	0	10,000	10,000	0	Wendel Engineers
Armonk	9	M	855,480	563,480	11,318	49.78	250,000	Owned	42,000	45,000	60	0	57,387	798,093	0	Fairfield Design Assocs.
Beacon	21	M	50,000	45,000	7,600	5.92	5,000	Owned	0	25,000	64	0	10,500	39,500	0	Battoglia Assocs.
Bohemia	40	M	435,553	357,553	4,000	89.38	0	Owned	78,000	125,000	100	0	18,119	417,434	0	Ronald Benedict
Boston	7	M	68,424	66,424	1,450	45.81	0	Owned	2,000	12,000	35	0	28,500	39,924	0	Kenneth Selden
Brooklyn	27	B	226,970	151,187	23,250	6.50	59,983	Owned	15,800	39,500	65	0	90,000	136,970	0	Robert L. Wilson
Brooklyn	30	B	399,867	312,400	9,000	34.71	63,467	Owned	24,000	22,000	65	0	74,000	325,867	0	Wallace Kaminsky
Brooklyn	30	B	110,370	71,353	14,075	5.06	32,517	Owned	6,500	22,500	70	0	38,000	72,370	0	Misra & Assocs.
Brooklyn	23	B	115,618	72,000	18,615	3.86	35,618	Owned	8,000	53,000	55	0	11,246	104,372	0	Bogen, Johnson, Lau & Jenal
Cheektowaga[16]	109	M	16,870	11,612	14,827	.78	5,258	Owned	0	50,000	80	0	6,000	9,895	975	not reported
Cohoes	18	M	897,000	737,000	13,500	54.59	50,000	Owned	110,000	40,000	65	0	24,767	872,233	0	Feibes, Schmitt & Pitts . . .
Collins	5	M	34,125	33,445	2,880	11.61	0	Owned	680	12,000	25	10,000	15,860	8,265	0	Carol C. Siracuse
Cortland	27	M	61,135	59,335	17,200	3.45	0	Owned	1,800	93,000	53	0	24,453	36,682	0	Karl H. Wendt
Deer Park	27	M	392,599	342,599	3,760	91.11	10,000	Owned	40,000	95,000	75	0	18,119	374,480	0	Raymond F. Fellman
East Meadow	51	M	1,208,201	956,402	11,140	85.85	139,799	Owned	112,000	300,000	207	0	57,000	1,151,201	0	Schaardt & Fullan
Flushing	33	B	487,014	364,614	8,220	44.35	98,400	Owned	24,000	70,000	90	0	62,110	424,904	0	David Mammina
Flushing	113	B	306,600	294,600	17,100	17.22	0	Owned	12,000	113,000	170	0	116,766	189,834	0	Laurence Werfel
Freeport	35	M	870,000	723,000	54,000	13.38	17,000	Owned	130,000	250,000	120	0	10,708	859,292	0	Bentel & Bentel
Fulton	13	M	57,000	55,600	6,500	8.55	0	Owned	1,400	55,000	65	0	25,300	31,700	0	Hueber-Hares-Glavin
Greenlawn	21	M	436,267	321,057	30,810	10.42	97,760	Owned	17,450	105,000	85	0	17,500	418,767	0	Allen & Grant
Hicksville	41	M	283,204	223,188	2,780	80.28	29,331	Owned	30,685	303,000	115	0	30,984	252,220	0	Bentel & Bentel

LIBRARY BUILDINGS 1987

Community	Pop. in M	Code	Project Cost	Const. Cost	Gross Sq. Ft.	Sq.Ft. Cost	Equip. Cost	Site Cost	Other Costs	Volumes	Reader Seats	Federal Funds	State Funds	Local Funds	Gift Funds	Architect
Irondequoit	57	B	319,202	297,202	6,060	49.04	0	Owned	22,000	140,000	86	0	19,189	300,013	0	Passero Assocs.
Ithaca	42	M	360,680	355,680	42,392	8.39	0	Owned	5,000	75,000	120	0	25,253	335,427	0	William Downing Assocs.
Keene Valley	1	M	55,550	49,850	3,608	13.81	3,000	Owned	2,700	17,000	13	0	20,000	35,550	0	Ronald H. DeLair
Lancaster	30	M	57,905	47,000	17,512	2.68	0	Owned	10,905	60,000	85	0	10,406	47,499	0	Wilson, Klaes . . .
Laurelton	26	B	174,000	131,600	8,000	16.45	37,200	Owned	5,200	65,000	50	0	69,563	104,437	0	David Mammina
Levittown	50	M	115,212	107,374	34,850	3.08	0	Owned	7,838	305,000	110	50,000	12,825	52,387	0	Lee A. Sagistano
Locust Valley	8	M	23,000	20,000	12,000	1.66	0	Owned	3,000	55,000	35	0	7,918	15,082	0	Bentel & Bentel
Long Beach	39	M	1,332,000	1,210,000	16,000	75.63	32,000	Owned	90,000	100,000	47	0	32,000	1,300,000	0	Daniel Langer
Mamaroneck	17	M	847,950	695,000	7,100	97.88	40,900	15,500	96,550	95,000	95	0	40,000	807,950	0	Scofield/Colgan . . .
Mattydale	7	M	117,689	110,589	2,074	53.32	0	Owned	7,100	20,000	40	0	47,560	70,129	0	George Swatt
New Hyde Park	9	M	25,000	23,650	5,500	4.30	0	Owned	1,350	55,000	46	0	6,933	18,067	0	Michael J. Squicciarin
North Tonawanda	36	M	89,786	86,286	24,000	3.59	0	Owned	3,500	120,000	110	0	14,000	75,786	0	Thomas R. Moscati
Oceanside	38	M	257,367	224,367	16,129	13.91	15,000	Owned	18,000	133,000	96	0	15,219	242,148	0	Schaardt & Fullan
Ogdensburg	12	M	38,800	38,050	16,000	2.37	0	Owned	750	40,000	50	0	19,400	19,400	0	John Teitsch
Olean	20	M	13,039	12,779	19,440	.65	0	Owned	260	90,000	86	0	8,850	4,189	0	Preston R. Abbey
Olean	20	M	11,872	7,238	432	17.00	3,995	Owned	639	110,000	135	0	5,000	6,872	0	Preston R. Abbey
Patterson	1	M	30,000	28,500	1,625	17.53	0	Owned	1,500	12,500	25	0	9,000	21,000	0	William I. Clark
Penfield[17]	27	M	1,065,935	841,000	18,400	45.70	152,670	Owned	72,265	73,600	95	0	60,100	1,005,835	0	MRS Group
Potsdam	10	M	54,056	52,976	9,472	5.59	0	Owned	1,080	50,000	45	0	18,000	36,056	0	Crawford & Stearns
Queens Village	34	B	499,696	358,805	11,700	30.67	98,018	Owned	42,873	97,500	70	0	165,626	334,070	0	Werfel Assocs.
Richfield Springs	1	M	27,350	26,050	3,100	8.40	0	Owned	1,300	12,400	20	0	12,926	14,424	0	James Jordan
Schenectady	21	B	56,000	56,000	3,946	14.19	0	Owned	0	23,500	30	0	25,793	30,207	0	Richard Bliss
Sloatsburg	3	M	155,369	131,369	11,400	11.52	11,000	Owned	13,000	20,000	26	0	36,500	118,869	0	Garfinkel & Gerecke
Spring Valley	80	M	4,415,720	3,387,332	30,000	113.00	559,404	5,000	463,984	300,000	250	0	8,000	4,407,720	0	SMS Architects, Inc.
Syracuse	25	B	117,592	110,592	12,400	8.91	0	Owned	7,000	25,000	75	0	54,545	63,047	0	Quinlivan, Pierik & Krause
Syracuse	24	B	75,000	65,000	15,700	4.14	0	Owned	10,000	35,000	55	0	36,363	38,637	0	Quinlivan, Pierik & Krause
Troy	56	M	81,000	73,150	16,470	4.44	5,150	Owned	2,700	115,000	95	0	25,126	55,874	0	Barbara Nelson
Watertown	341	S	72,726	69,126	17,800	3.88	0	Owned	3,600	n/a	n/a	0	30,000	42,726	0	Yaussi & Aceti
Westfield	5	M	36,339	35,976	10,000	3.59	0	Owned	363	36,000	30	0	5,750	30,589	0	Carol C. Siracuse
NORTH CAROLINA																
Bessemer City[18]	10	B	178,865	156,135	3,034	51.46	6,085	Owned	16,645	25,000	20	0	0	178,865	0	Guy A. Yeargin
Dallas	10	B	215,848	190,064	2,970	63.99	7,076	Owned	18,708	25,000	20	0	0	215,848	0	Guy A. Yeargin
Pittsboro	15	B	189,471	172,392	2,048	84.18	9,079	Owned	8,000	32,000	27	30,000	0	0	159,471	Hackney, Sears & Assocs.
Rutherfordton	55	M	144,664	120,987	5,200	23.27	7,593	Owned	16,084	30,000	28	0	15,000	5,000	157,795	Jim Martin
OHIO																
Barberton	30	M	2,052,380	1,666,362	27,922	59.67	91,817	Owned	294,201	120,000	142	0	0	2,200,000	0	William D. Koster
Columbus	35	M	360,476	296,884	2,800	106	38,450	Owned	25,142	35,000	44	50,000	0	270,913	39,563	Feinknopf, Macioce . . .
Pleasant Hill	3	B	152,000	125,000	2,000	62.50	0	Owned	27,000	12,000	12	73,000	0	79,000	0	not reported
Upper Arlington	893	M	3,126,045	2,549,640	52,000	49.03	389,867	Leased	186,538	268,000	295	0	0	3,126,045	0	Trott & Bean Architects
OKLAHOMA																
Moore[19]	43	B	1,827,572	1,544,170	29,382	52.55	142,329	Owned	141,073	100,000	225	0	0	1,827,572	0	Graves, Boynton, Williams
Pryor	9	M	266,998	214,800	4,300	49.95	52,198	Owned	0	7,000	22	18,000	0	0	248,998	Olsen-Coffey
OREGON																
Portland[20]	24	B	14,652	11,602	2,000	5.80	3,050	Owned	0	10,000	26	0	0	12,652	2,000	none
RHODE ISLAND																
Westerly	19	M	22,426	22,426	200	112.00	0	Owned	0	125,000	58	11,213	0	11,213	0	not reported
TEXAS																
Ballinger[21]	7	M	471,340	443,715	9,000	49.30	0	Owned	27,625	10,000	20	0	0	53,500	417,840	Jack E. Meek
Howe	3	M	40,123	13,000	2,091	6.22	16,956	10,167	0	25,000	33	29,623	0	0	10,500	Bryan Thurston
McKinney[22]	27	M	1,577,500	930,000	20,000	46.50	108,000	465,000	74,500	60,000	112	200,000	0	1,377,500	0	Harvey Moore
Palestine[23]	41	M	904,933	704,933	15,664	45.00	130,000	Owned	70,000	60,000	50	200,000	0	200,000	504,933	Jerry Hill
UTAH																
Cedar City	19	M	1,847	1,847	n/a	n/a	0	Owned	0	44,000	n/a	950	0	950	0	not reported
Ephraim	3	M	1,390	1,390	n/a	n/a	0	Owned	0	15,000	n/a	695	0	695	0	not reported
Kaysville	12	M	269,234	213,968	6,020	36.00	23,504	Owned	31,762	40,000	60	0	0	103,483	165,751	Babcock Pace & Assocs.
Monroe	2	M	1,900	1,900	n/a	n/a	0	Owned	0	9,000	n/a	950	0	950	0	not reported
Mt. Pleasant	7	M	1,970	1,970	n/a	n/a	0	Owned	0	8,100	n/a	970	0	1,000	0	not reported
Price	10	M	1,950	1,950	n/a	n/a	0	Owned	0	25,000	n/a	950	0	1,000	0	not reported
Richfield	10	M	1,950	1,950	n/a	n/a	0	Owned	0	20,000	n/a	1,000	0	950	0	not reported
VERMONT																
Brattleboro	49	M	38,652	35,592	630	56.50	0	Owned	3,060	110,000	50	0	10,800	27,852	0	David Ryan
VIRGINIA																
Martinsville	94	MS	1,632,069	1,162,812	24,950	46.60	116,990	136,000	216,267	246,000	173	0	0	136,000	1,496,069	John Tymoff
Newport News	20	B	149,600	134,500	10,000	13.45	3,800	Owned	11,300	65,000	26	0	0	145,800	3,800	none
Portsmouth	18	B	72,000	66,283	936	70.81	0	Owned	5,717	30,000	51	0	0	72,000	0	none
WASHINGTON																
Colville[24]	5	M	372,840	282,000	4,810	59.00	30,000	Owned	60,840	30,000	35	186,420	0	186,420	0	Ernest K. Robeson
Longview[25]	29	M	55,436	42,674	750	56.90	1,500	Owned	11,262	130,000	150	39,050	0	4,886	11,500	Gary Slyter . . .
Monroe	15	M	230,000	171,750	4,712	36.45	35,000	Owned	23,250	23,700	50	110,000	0	90,000	30,000	Lewis-Nelson Assocs.
Seattle	48	B	663,000	530,000	5,500	96.36	68,000	Owned	65,000	30,750	32	0	0	595,000	68,000	Cardwell/Thomas Assoc.
Spokane	60	B	1,344,674	1,106,885	24,576	45.04	146,250	Owned	91,539	100,000	85	0	0	1,340,969	3,705	Warren C. Heyman . . .
Spokane	35	B	28,039	26,405	349	75.66	0	Owned	1,634	13,700	20	14,019	0	14,020	0	Warren C. Heyman . . .
WISCONSIN																
LaCrosse	1	M	25,840	7,840	1,030	7.61	0	18,000	0	8,000	20	12,500	0	13,340	0	Keith Reinert
Roberts[26]	2	M	65,000	58,600	750	78.13	4,000	Owned	2,400	10,000	15	0	0	32,000	33,000	Bill Simkins
Saukville[27]	3	M	130,694	13,576	4,399	3.08	10,880	96,500	9,738	12,000	19	0	0	129,701	993	Earlich Genson, Inc.
WYOMING																
Afton	7	B	223,633	195,945	5,288	37.05	0	Owned	27,688	30,000	45	37,142	0	186,491	0	Bruce Hawtin
Thermopolis	5	M	94,812	65,747	861	76.36	0	Owned	29,066	48,000	90	0	46,000	48,812	0	Albert Lambiase

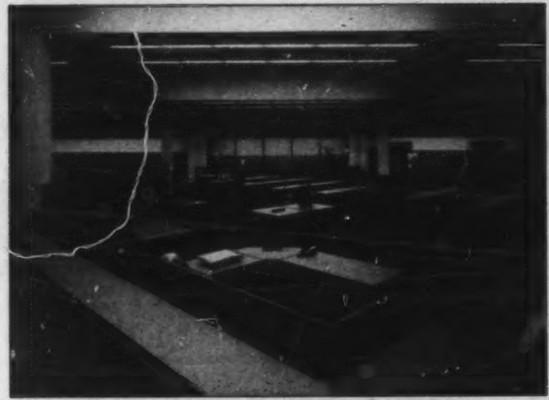
Buildings Not Previously Reported

Community	Pop. in M	Code	Project Cost	Const. Cost	Gross Sq. Ft.	Sq.Ft. Cost	Equip. Cost	Site Cost	Other Costs	Volumes	Reader Seats	Federal Funds	State Funds	Local Funds	Gift Funds	Architect
Savannah, GA (1986)	257	M	$121,457	$102,486	n/a	n/a	$8,571	Owned	$10,400	n/a	n/a	$108,957	0	$12,500	0	Helfrich, Grantham . . .
Holyoke, MA (1986)	44	M	306,947	275,258	2,868	$95.97	0	Owned	31,689	n/a	n/a	102,550	0	201,219	$3,178	Timothy Murphy
Howell Twnshp., NJ (1986)	31	B	1,348,971	1,222,000	11,200	109.11	48,971	Owned	78,000	45,000	78	0	0	1,348,971	0	Eggars–Bryant Gould
Corpus Christi, TX (1985)	281	MS	5,672,000	4,072,000	79,000	51.54	540,000	735,000	325,000	260,000	280	0	0	5,200,000	472,000	Morris Archs.; Wisznia

	Fiscal 1982	Fiscal 1983	Fiscal 1984	Fiscal 1985	Fiscal 1986	Fiscal 1987
Number of new bldgs.	92	54	48	99	71	101
Number of ARRs[1]	76	42	63	125	120	148
Sq. ft. new bldgs.	2,058,429	835,211	800,252	852,831	1,141,957	1,370,479
Sq. ft. ARRs	737,707	369,351	523,963	1,227,063	1,189,319	1,554,393
NEW BLDGS.						
Construction cost	$107,890,141	$48,761,130	$64,370,118	$52,799,143	$73,092,317	$101,016,870
Equipment cost	14,580,451	6,426,618	6,451,298	6,585,913	9,799,996	17,958,318
Site cost	3,556,109	2,741,248	1,622,534	4,085,764	4,211,461	5,047,659
Other costs	13,219,164	6,018,787	6,397,740	5,728,714	10,869,097	12,096,087
Total—Project cost	141,893,227	63,947,783	78,841,690	70,583,649	97,972,871	136,952,501
ARRs—Project cost	38,147,095	18,769,475	30,762,934	69,256,835	59,634,921	78,504,854
NEW & ARR PROJECT COST	$180,040,322	$82,717,258	$109,604,624	$139,840,484	$157,607,792	$215,457,355
FUND SOURCES						
Federal, new bldgs.	$11,922,851	$4,401,647	$2,274,957	$9,803,398	$6,367,559	$5,757,098
Federal, ARRs	5,497,522	1,046,490	2,227,355	8,086,819	4,753,052	4,677,400
Federal, total	$17,420,37[illegible]	$5,448,137	$4,502,312	$17,890,217	$11,120,611	$10,434,498
State, new bldgs.	$23,532,309	$8,175,330	$4,340,803	$4,139,433	$1,863,277	$7,710,681
State, ARRs	1,049,493	3,160,159	2,784,153	1,607,519	7,054,676	5,060,877
State, total	$24,581,802	$11,335,489	$7,124,956	$5,746,952	$8,917,953	$12,771,558
Local, new bldgs	$87,920,271	$47,544,033	$71,043,181	$47,914,637	$73,997,971	$117,135,870
Local, ARRs	[illegible]	10,640,891	22,921,592	49,096,264	42,971,936	62,839,510
Local, total	$112,546,992	$58,184,924	$93,964,773	$97,010,901	$116,969,907	$179,975,380
Gift, new bldgs.	$20,143,884	$3,957,736	$1,169,101	$8,766,333	$15,771,620	$7,182,656
Gift, ARRs	2,736,493	3,171,935	2,838,892	10,490,099	4,982,621	6,165,722
Gift, total	$22,880,377	$7,129,671	$4,007,993	$19,256,432	$20,754,241	$13,348,378
TOTAL FUNDS USED	$175,995,668	$82,098,221	$109,600,034	$139,904,502	$157,762,712	$216,529,814

[1] Additions, Remodelings, and Renovations

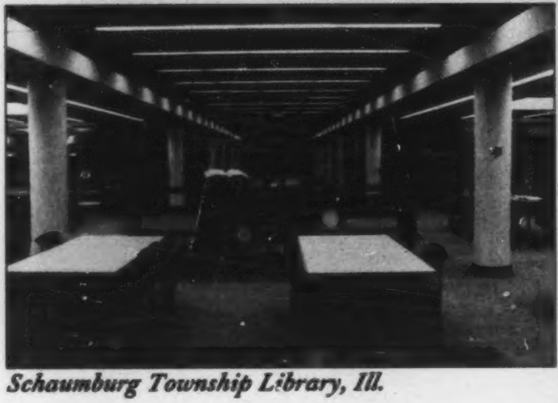
1. Three-story atrium through center.
2. Round building, encased in glass; tension-ring structural system creates open plan without internal obstructions.
3. Rebuilt after arson fire in April 1985.
4. Honor award interior: Southern Colorado Chapter of American Institute of Architects.
5. Connection to historic stone jail that previously housed library.
6. Section to serve the hearing impaired; Georgia School for the Deaf also in Cave Spring.
7. Located in rail station, first rapid transit library in country.
8. Natural wooded site; extention of prairie surroundings leading to Illinois Prairie Path.
9. Special Indiana History room.
10. Project totally funded by gifts & donations; beamed cathedral ceiling with skylight.
11. Library center of correctional facility
12. Mohawk Reservation library; houses museum and Native American collection.
13. Citizens raised over $100,000 to match LSCA grant.
14. First regional library.
15. Winner, Exceptional Design Award of Office of Comprehensive Planning and Architectural Review Board.
16. Converted raw warehouse space into public space.
17. Remodeled school.
18. Branch originally built in 1960 as square brick box with only 1,883 sq. ft.
19. Has indoor garden atrium.
20. Changed branch library from traditional to bookstore arrangement.
21. 1909 building, on National Register of Historic Places.
22. Renovated bank.
23. Seventy-year-old school building is central core of new library.
24. Building originally built in 1932; has great historical significance.
25. Remodeled to provide handicapped access to existing structure.
26. Library, which began in 1975, was named for teacher who for 30 years taught Roberts community to read.
27. Former grade school built in 1925.



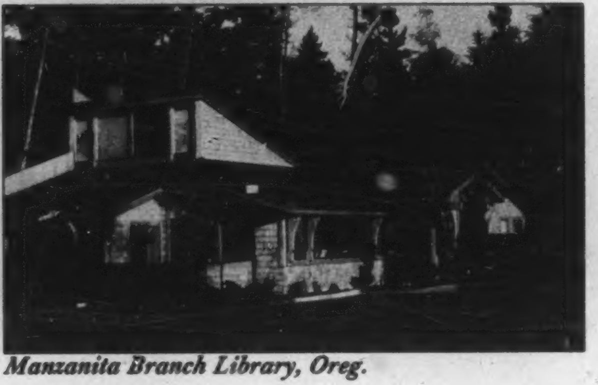
Alexandrian PL, Mt. Vernon, Ind.

RAY STREIB, "MESA INDEPENDENT"

Dobson Branch Library, Mesa, Ariz.



Schaumburg Township Library, Ill.



Manzanita Branch Library, Oreg.

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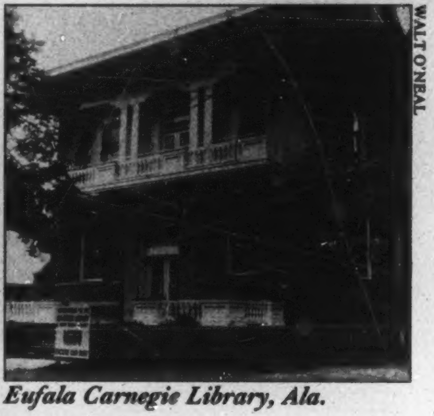
LAWRENCE S. WILLIAMS,

REFERENCE and INFORMATION

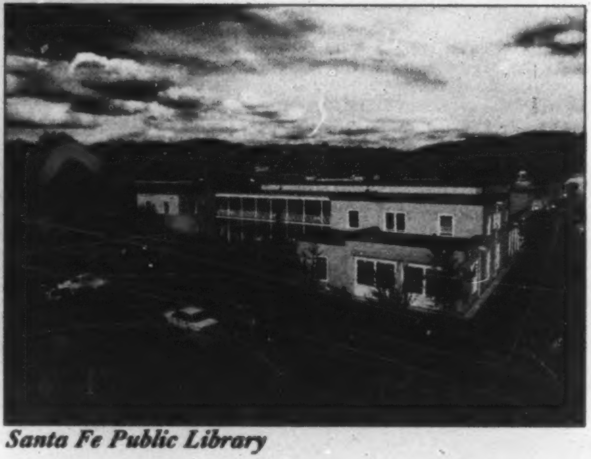
Blue Ridge Regional Lib., Martinsville, Va.

WALT O'NEAL



Eufala Carnegie Library, Ala.

Community Library, Ketchum, Id.



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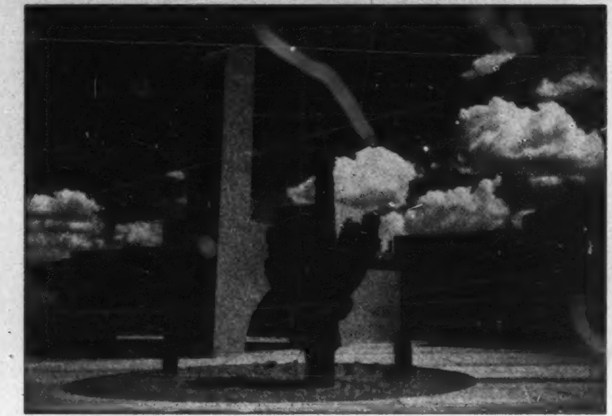
Flagstaff City-Coconino County Public Library, Ariz.



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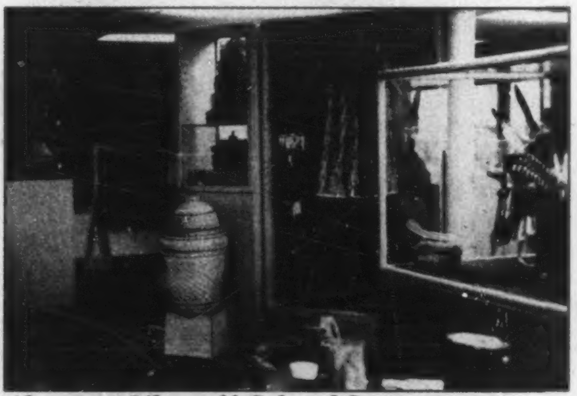

Akwesasne Library & Cultural Center, Hogansburg, N.Y.

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Library Projects in Progress

The "Projects in Progress" section, now in its third year, surpasses all our initial expectations for its utility and longevity. The total number of projects listed has increased 49 percent in two years. Library construction has taken off and it doesn't appear it will slow down for the next few years at least. Anyone worried about the future of libraries, breathe a sigh of relief: they're going to be around for a long time. And within the next three to four years, there will be 586 more of them.

The list of individual projects submitted follows with the stage(s) of progress checked accordingly.

Pre-design stage:

1. Preliminary investigation
2. Program filed
3. Project funded
4. Architect selected

Design stage:

5. Design stage in progress
6. Construction documents completed
7. Bidding complete
8. Contracts awarded

The date following the library name represents the estimated year of completion.

Public Library Projects

NAME OF LIBRARY	STAGES							
	1	2	3	4	5	6	7	8
ALABAMA								
Adelia M. Russell Library, Alexander City [1987]								✓
Andalusia PL [1988]	✓	✓	✓	✓	✓	✓	✓	✓
Auburn PL [1987]	✓	✓	✓	✓	✓	✓	✓	✓
Hoover PL, Birmingham [1989]	✓	✓		✓		✓		
Smithfield Branch, Birmingham [1987]	✓	✓	✓	✓	✓	✓	✓	✓
N. Shelby County Lib., Columbiana [1988]	✓	✓	✓	✓	✓	✓	✓	✓
Cullman Cty. PL [1988]	✓	✓	✓	✓	✓			
Horseshoe Bend Regional Lib., Dadeville [1987]	✓	✓	✓	✓	✓	✓	✓	✓
Demopolis PL [1988]	✓		✓	✓	✓			
Eufaula Carnegie Library [?]	✓			✓	✓			
Gadsden PL [1988]	✓	✓	✓	✓	✓	✓	✓	✓
Gardendale PL [1988]	✓	✓		✓	✓			
Clyde Nix PL, Hamilton [1988]		✓	✓	✓	✓	✓		✓
Helena PL [1988]	✓	✓	✓	✓	✓	✓	✓	✓
Irondale PL [1988]	✓	✓	✓	✓	✓	✓		
Jacksonville PL [1987]	✓	✓	✓	✓	✓	✓	✓	✓
LaFayette PL [?]	✓	✓	✓	✓				
Rainsville PL [1988]	✓	✓	✓	✓	✓			
Saraland PL [1988]	✓	✓	✓	✓	✓	✓	✓	
Library Board-Town of Sumiton [1988]			✓	✓			✓	
ARIZONA								
Scottsdale PL [1988]							✓	✓
Tucson PL [1990]	✓	✓	✓	✓	✓	✓	✓	

LIBRARY BUILDINGS 1987

NAME OF LIBRARY	STAGES							
	1	2	3	4	5	6	7	8
CALIFORNIA								
Baker Street Branch, Bakersfield [1988]	✓	✓	✓	✓	✓	✓	✓	✓
Kern County Library, Bakersfield [1987]	✓	✓	✓	✓	✓	✓	✓	✓
Beverly Hills PL [1989]								✓
Carlsbad City Library [1990]	✓							
Cupertino Community Library [1987]								✓
El Cajon Library [1991]	✓	✓		✓	✓			
Escalon Branch Library [?]	✓	✓						
Heritage Park Regional, Irvine [1988]								✓
Crown Valley Br., Laguna Niguel [1987]								✓
Kern County Library, Lake Isabella [1988]	✓	✓	✓	✓	✓			
Lawndale Library [?]	✓	✓		✓	✓			
Oceanside PL [1989]	✓	✓	✓	✓	✓	✓		
Parlier Branch Library [1987]	✓	✓	✓	✓	✓	✓	✓	✓
Ramona Branch [1988]	✓	✓	✓	✓				
Redwood City PL [1988]	✓	✓	✓	✓	✓	✓	✓	✓
Rosemead Library [?]	✓	✓	✓	✓				
Central Library, Sacramento [1990]			✓	✓	✓			
Linda Vista Branch, San Diego [1987]	✓	✓	✓	✓	✓	✓	✓	✓
San Geronimo Valley Branch [1987]	✓	✓	✓	✓	✓	✓	✓	✓
San Marcos Library [1989]	✓	✓	✓					
Tuolumne County Free Library, Sonora [1987]	✓	✓	✓	✓	✓	✓	✓	✓
South Whittier Lib., Whittier [?]				✓		✓		
Willits Branch [1988]	✓	✓	✓	✓	✓			
Willowbrook Library [1987]	✓	✓	✓	✓				✓
Woodland PL [1988]	✓	✓	✓	✓	✓	✓	✓	✓
COLORADO								
P.S. Miller Lib., Castle Rock [1987]								✓
Loveland PL [1987]	✓	✓	✓	✓	✓	✓	✓	✓
Werner Lib., Steamboat Springs [1987]	✓	✓	✓	✓	✓	✓	✓	✓
CONNECTICUT								
Prosser PL, Bloomfield [1988]	✓	✓	✓	✓	✓	✓	✓	✓
T.A. Hungerford Library, Harwinton [1988]	✓	✓	✓	✓	✓	✓		
E.C. Scranton Memorial Library, Madison [1988]							✓	✓
Lucy Robbins Welles, Newington [1987]	✓	✓	✓	✓		✓	✓	✓
Preston PL [1988]	✓	✓	✓	✓	✓	✓	✓	✓
DELAWARE								
Milton PL [1987]			✓	✓		✓	✓	✓
Selbyville PL [1990]						✓	✓	
DISTRICT OF COLUMBIA								
Gelman Library [1988]	✓	✓	✓	✓		✓	✓	✓
Shepherd Park Branch [1989]	✓	✓	✓	✓	✓			
FLORIDA								
Casselberry Central Branch [1988]								✓
Hugh Embry Library, Dade City [1989]	✓	✓	✓	✓	✓			
Volusia Cty., Daytona Beach [1987]								✓
DeLand Area Library, DeLand [1988]	✓	✓	✓	✓	✓	✓		
Deltona PL [1987]	✓	✓	✓	✓	✓	✓	✓	✓
Edgewater PL [1988]	✓	✓	✓	✓	✓	✓		
So. Holiday Neighborhood Lib., Holiday [1989]			✓	✓	✓			
Hudson Area Library [1989]			✓	✓	✓			
Lake Helen-Hopkins Lib., Lake Helen [1988]	✓	✓	✓	✓	✓	✓		
Northwest Branch, Lake Mary [1988]								✓
West Branch, Longwood [1988]								✓
East Naples Branch, Naples [1988]		✓	✓	✓	✓			
Marco Island Branch, Naples [1988]			✓	✓		✓	✓	✓
East Branch, Oviedo [1987]								✓
Palm Harbor Library [1988]	✓	✓	✓	✓	✓	✓	✓	✓
Regency Park Branch, Port Richey [1988]	✓	✓	✓	✓	✓			
North Branch, Sanford [1987]								✓
GEORGIA								
Cook County Library, Adel [1989]	✓	✓		✓				
Northwest Branch, Albany [1988]	✓	✓	✓	✓	✓			
Southside Branch, Albany [1988]	✓	✓	✓	✓	✓			

NAME OF LIBRARY	STAGES							
	1	2	3	4	5	6	7	8
Tallulah Massey Branch, Albany [1989]	✓	✓		✓	✓			
Alma/Bacon County PL, Alma [1988]								✓
Victoria Evans Memorial, Ashburn [1988]	✓	✓	✓	✓	✓			
Chamblee PL, Atlanta [1988]	✓	✓	✓	✓	✓			
Warren P. Sewell Memorial Lib., Bowdon [1988]	✓	✓	✓	✓	✓			
Warren P. Sewell Memorial Lib., Bremen [1988]	✓	✓	✓	✓	✓			
Broxton PL [1987]	✓	✓	✓	✓	✓	✓	✓	✓
Roddenbery Memorial Library, Cairo [1989]	✓	✓	✓	✓	✓	✓	✓	
Cartersville-Bartow Cty. [1988]		✓	✓	✓		✓	✓	
Miller County PL, Colquitt [1988]	✓	✓	✓	✓	✓	✓	✓	✓
Cordele-Crisp Carnegie Lib. [1987]	✓	✓	✓	✓	✓	✓	✓	✓
Chattahoochee County PL, Cusseta [1987]	✓	✓	✓	✓	✓	✓	✓	✓
Madison County Library, Danielsville [1988]	✓	✓		✓				
Ida Hilton PL, Darien [1987]	✓	✓	✓	✓	✓	✓	✓	✓
Seminole County PL, Donalsonville [1987]	✓	✓	✓	✓	✓	✓	✓	✓
Dunwoody PL [1988]	✓	✓	✓	✓	✓	✓		
Eatonton-Putnam Cty. Lib. [1987]								✓
Calhoun County Library, Edison [1987]	✓	✓	✓	✓	✓	✓		
Emmie Nelson Library, Euharlee [1987]								✓
Clay County Library, Ft. Gaines [?]	✓	✓	✓	✓	✓	✓		
Jones County PL, Gray [1988]	✓	✓	✓	✓	✓	✓	✓	✓
Walter & Dorothy S. Salter PL, Hahira [1988]			✓	✓	✓	✓		
Wayne Cty. Lib., Jesup [1988]	✓	✓	✓	✓	✓	✓	✓	✓
Clayton Cty. Lib., Jonesboro [1988]	✓	✓	✓	✓	✓	✓	✓	✓
Kennesaw Branch Library [1989]	✓	✓	✓	✓				
Camden Cty. Library, Kingsland [1988]	✓	✓	✓	✓	✓	✓		
Loganville City Library [1989]			✓					
Telfair County Library, McRae [1988]	✓	✓	✓	✓	✓	✓		
Morgan Cty. Lib., Madison [1988]					✓			
Cobb County PL, Marietta [1989]		✓	✓	✓	✓	✓		
Merchant's Walk Lib., Marietta [1987]								✓
Northeast Cobb Branch, Marietta [1989]	✓	✓	✓	✓				
Southeast Cobb Branch, Marietta [1989]	✓	✓	✓	✓				
West Cobb Branch, Marietta [1989]	✓	✓	✓	✓	✓			
Monroe-Walton Cty. Lib. [1988]								✓
Jasper Cty. Lib., Monticello [1987]								✓
Nicholson PL [1988]	✓	✓						
Powder Springs Branch [1989]	✓	✓	✓	✓				
South Effingham Branch, Rincon [1987]	✓	✓	✓	✓	✓	✓	✓	✓
Sara Hightower Regional, Rome [1988]	✓	✓	✓	✓	✓	✓	✓	✓
St. Mary's Library [1988]	✓	✓	✓	✓	✓	✓		
Hancock Cty. Lib., Sparta [1989]				✓				
Sue Kellogg, Stone Mountain [1988]	✓	✓	✓	✓	✓	✓	✓	✓
Screven County Library, Sylvania [1988]	✓	✓	✓	✓	✓			
Margaret Jones Lib., Sylvester [1987]	✓	✓	✓	✓	✓	✓	✓	✓
Thunderbolt Library [1987]	✓	✓	✓	✓	✓	✓	✓	✓
Coastal Plain Regional, Tifton [1987]	✓	✓	✓	✓	✓	✓	✓	✓
Toccoa-Stephens County PL, Toccoa [1988]	✓	✓	✓	✓	✓	✓	✓	✓
Reid H. Cofer Lib., Tucker [1987]	✓	✓	✓	✓	✓	✓	✓	✓
Tybee Island Library [1987]	✓	✓	✓	✓	✓	✓	✓	✓
Warren County Library, Warrenton [1989]	✓	✓						
Piedmont Regional Lib., Winder [1987]	✓	✓	✓	✓	✓	✓	✓	✓
Woodstock PL [1989]		✓		✓				
ILLINOIS								
Bartlett PL [1988]	✓	✓	✓	✓	✓	✓	✓	✓
Bridgeview PL [1988]	✓	✓	✓	✓	✓	✓	✓	✓
Calumet Park PL [1987]	✓	✓	✓	✓	✓	✓	✓	✓
Hope Weltry Township Lib., Cerro Gordo [1988]	✓	✓	✓	✓	✓	✓	✓	✓
Homer Township PL, Lockport [1988]	✓	✓	✓	✓	✓	✓	✓	✓
Village of Oreana Library [1987]	✓	✓	✓	✓	✓	✓	✓	✓
Palos Heights PL [1988]		✓	✓	✓		✓	✓	✓
Rolling Meadows Library [1987]	✓	✓	✓	✓	✓	✓	✓	✓
St. Charles PL [1989]	✓	✓	✓	✓	✓	✓	✓	✓
Taylorville PL [1987]	✓	✓		✓		✓	✓	✓
Wilmington PL [1988]	✓	✓	✓	✓	✓	✓	✓	✓

LIBRARY BUILDINGS 1987

NAME OF LIBRARY	STAGES							
	1	2	3	4	5	6	7	8
INDIANA								
Alexandria-Monroe PL [?]	✓							
Angola-Carnegie PL, Angola [?]	✓	✓	✓	✓	✓	✓	✓	✓
Batesville Memorial PL [1988]	✓	✓	✓	✓	✓	✓	✓	✓
Bartholomew Cty. PL, Columbus [1987]	✓	✓	✓	✓	✓	✓	✓	✓
Dunkirk PL [1988]	✓	✓	✓	✓		✓	✓	✓
Franklin-Johnson PL [1988]	✓	✓	✓	✓	✓	✓	✓	✓
Goshen PL [?]	✓							
Hagerstown-Jefferson Twp. Library [1988]	✓	✓		✓	✓			
Jeffersonville Twp. PL [1988]	✓	✓	✓	✓	✓			
Tippecanoe Cty. PL, Lafayette [1989]	✓	✓		✓	✓	✓		
Lawrenceburg PL [1988]	✓	✓	✓	✓	✓	✓	✓	✓
Peru PL [1988]	✓	✓		✓				
Rushville PL [1989]	✓			✓				
Warsaw Community PL [?]	✓							
IOWA								
Blue Grass Branch [?]	✓	✓	✓		✓	✓	✓	
Stewart Memorial Lib., Cedar Rapids [1988]	✓	✓	✓	✓	✓	✓	✓	✓
Drake PL, Centerville [1987]	✓	✓	✓	✓	✓	✓		
Donnellson PL [1987]	✓	✓	✓	✓	✓	✓	✓	✓
Sioux Center PL [1987]	✓	✓	✓	✓	✓	✓	✓	✓
KENTUCKY								
Boyd County PL, Ashland [1988]				✓	✓			
Trimble Cty. PL, Bedford [1987]	✓	✓	✓	✓	✓	✓	✓	✓
Harrison County PL, Cynthiana [1988]	✓		✓	✓				
Danville-Boyle Cty. PL [1988]	✓	✓	✓	✓	✓	✓		
Hardin County PL, Elizabethtown [1989]	✓	✓		✓	✓			
Henry Cty. PL, Eminence [1988]			✓	✓	✓			
Paul Sawyier PL, Frankfort [1988]					✓	✓	✓	✓
Lexington PL [1988]	✓	✓	✓	✓	✓	✓	✓	✓
Casey County PL, Liberty [1988]	✓				✓			
Campbell County PL, Newport [1988]	✓	✓	✓	✓		✓		
Paris-Bourbon County Library, Paris [1988]					✓			
Floyd County Library, Prestonsburg [1987]	✓	✓	✓	✓	✓	✓	✓	✓
LOUISIANA								
Jefferson Parish, Harvey [1989]	✓	✓	✓	✓	✓			
Claiborne Parish Library, Homer [1988]			✓	✓		✓		
Jefferson Parish Library, Metairie [1990]	✓		✓	✓				
Metairie Road Branch, Metairie [1988]	✓	✓	✓	✓	✓	✓	✓	✓
Mayor Broadmoor Branch, New Orleans [?]				✓				
New Orleans Central PL [1988]	✓	✓	✓	✓	✓	✓	✓	✓
Live Oak Branch, Waggaman [1988]	✓	✓	✓	✓	✓	✓	✓	✓
MAINE								
Walker Memorial Library, Westbrook [1989]	✓	✓	✓	✓	✓	✓	✓	✓
MARYLAND								
Anne Arundel Cty. Library, Annapolis [?]	✓	✓						
Edgewater Branch, Annapolis [?]	✓	✓	✓	✓	✓			
White Marsh Library, Baltimore [1987]								✓
Bel Air Branch [1990]	✓							
Little Falls Community Library, Bethesda [1989]	✓	✓	✓	✓	✓			
Chevy Chase Community Library [1989]	✓	✓	✓	✓				
Howard County Library, Columbia [1991]			✓					
Damascus Community Library [1990]	✓	✓	✓	✓	✓			
Cecil County HQ, Elkton [1987]	✓	✓	✓	✓	✓	✓	✓	✓
Germantown Community Library [1990]	✓	✓	✓	✓	✓			
Kensington Park Comm. Lib., Kensington [1990]	✓	✓						
So. Maryland Regnl. Lib. Assn., LaPlata [1989]	✓	✓	✓	✓	✓	✓	✓	
Largo-Kettering Branch, Largo [?]	✓	✓						
Laurel Branch [?]	✓	✓						
Calvert County PL, Prince Frederick [1988]	✓	✓	✓	✓	✓	✓	✓	✓
Somerset Cty., Princess Anne [1988]	✓	✓	✓	✓	✓	✓	✓	✓
Aspen Hill Community Library, Rockville [1989]	✓	✓	✓	✓	✓			
Rockville Regional Library [1991]	✓	✓						
Severna Park Branch [?]	✓		✓					
Fairland Community Lib., Silver Spring [1992]	✓	✓						
Silver Spring Community Library [1988]	✓	✓	✓	✓	✓	✓	✓	✓
White Oak Community Lib., Silver Spring [?]	✓	✓	✓	✓	✓			
Walkersville Branch [1987]	✓	✓	✓	✓	✓	✓	✓	✓
MASSACHUSETTS								
Jones Library, Amherst [1990]	✓	✓	✓	✓				
Memorial Hall Library, Andover [1988]	✓	✓	✓	✓	✓	✓	✓	✓
Robbins Library, Arlington [1989]	✓	✓	✓	✓	✓			
Attleboro PL [?]	✓	✓		✓	✓			
Boston PL [1993]	✓	✓	✓	✓	✓			
Boylston PL [?]				✓	✓			
Eldredge PL, Chatham [1989]	✓	✓		✓	✓			
Chelmsford PL [?]	✓							
Chelsea PL [?]	✓	✓	✓	✓				
Chilmark PL [1989]	✓	✓		✓	✓			
Eastham PL [1988]	✓	✓	✓	✓	✓	✓	✓	✓
Fall River PL [1994]	✓	✓	✓	✓				
Franklin PL [1988]	✓	✓	✓	✓		✓	✓	✓
Hanson PL [?]	✓			✓				
Lincoln PL [1989]	✓	✓	✓	✓	✓	✓	✓	
Reuben Hoar Lib., Littleton [1988]	✓	✓	✓	✓	✓			
Hubbard Memorial Library, Ludlow [1989]	✓	✓						
Milton PL [1987]								✓
Monson Free Library [1989]	✓	✓	✓	✓	✓	✓	✓	
Newton Free Library [1990]	✓	✓	✓	✓	✓			
Stevens Memorial, North Andover [1989]	✓	✓		✓	✓			
Plymouth PL [1992]	✓	✓		✓				
Southborough Library [1989]	✓	✓	✓	✓	✓			
Conant PL, Sterling [1989]					✓			
Watertown Free PL [1989]	✓	✓		✓	✓			
Wayland PL [1987]	✓	✓	✓	✓	✓	✓	✓	✓
Wellfleet PL [1988]	✓	✓	✓	✓	✓	✓		
West Bridgewater PL [1989]	✓	✓	✓	✓	✓			
G.A.R. Memorial, West Newbury [1988?]	✓	✓	✓	✓	✓	✓	✓	✓
J.V. Fletcher Lib., Westford [1989]	✓	✓	✓	✓	✓	✓	✓	✓
Whitman PL [1988]	✓	✓	✓	✓	✓	✓		
Fiske PL, Wrentham [?]	✓							
MINNESOTA								
Cloquet PL [1987]								✓
Northdale Br.-Anoka Cty., Coon Rapids [1987]	✓	✓	✓	✓	✓	✓	✓	✓
Forest Lake PL [1988]	✓	✓	✓	✓	✓	✓	✓	✓
Hennepin County Library, Maple Grove [1987]								✓
MISSISSIPPI								
Hancock County Library, Bay St. Louis [1988]		✓		✓				
Centreville PL [1988]			✓	✓	✓			
Bolivar County Library, Cleveland [1988]	✓			✓	✓			
New Hebron PL [1988]			✓					
Ricks Memorial Library, Yazoo City [1988]	✓							
MISSOURI								
Barry-Lawrence Regnl. Lib., Mt. Vernon [1987]	✓	✓	✓	✓	✓	✓	✓	✓
MONTANA								
Butte-Silver Bow PL, Butte [1987]	✓	✓	✓	✓	✓	✓	✓	✓
Hamilton PL [1988]	✓	✓	✓	✓	✓	✓	✓	✓
Big Horn Cty. Lib., Hardin [1987]	✓	✓	✓	✓	✓	✓	✓	✓
Laurel PL [1988]	✓		✓	✓	✓			
Lincoln County Library, Libby [1987]	✓	✓	✓	✓	✓	✓	✓	✓
Lincoln Community Library [?]				✓	✓			
Polson City Library [?]	✓	✓		✓	✓			
Rockland Memorial Library [?]	✓	✓			✓			
Rush City PL [1988]	✓	✓	✓	✓	✓	✓	✓	
NEVADA								
Beatty Community Library [1988]			✓			✓	✓	✓
Green Valley Lib., Henderson [1987]	✓	✓	✓	✓	✓	✓	✓	✓
Henderson District PL [1989]	✓	✓	✓	✓	✓			
Clark Cty. Lib. District, Las Vegas [1989]	✓	✓	✓	✓	✓			
Rainbow Library, Las Vegas [1989]	✓	✓	✓					

LIBRARY BUILDINGS 1987

NAME OF LIBRARY	STAGES							
	1	2	3	4	5	6	7	8
Sunrise Library, Las Vegas [1987]	✓	✓	✓	✓	✓	✓	✓	✓
Douglas County PL, Minden [1988]	✓	✓	✓	✓				
Reno Central Library [1987]	✓	✓	✓	✓	✓	✓	✓	✓
Sparks Branch, Reno [1987]	✓	✓	✓	✓	✓	✓	✓	✓
Stead Branch, Reno [1988]	✓	✓	✓					
West Las Vegas Library [1988]	✓	✓	✓	✓	✓			
NEW HAMPSHIRE								
Goffstown PL [1987]	✓	✓	✓	✓	✓	✓	✓	✓
North Conway PL [1987]	✓	✓	✓	✓	✓	✓	✓	✓
Sanbornton PL [1988]	✓	✓	✓	✓	✓	✓		
NEW JERSEY								
Blackwood Rotary PL [1988]	✓	✓	✓	✓	✓	✓		
Bogotta PL [1988]	✓	✓	✓	✓	✓	✓	✓	✓
Linwood PL [1988]	✓	✓	✓	✓	✓	✓		
Nutley PL [1989]	✓	✓	✓	✓	✓	✓	✓	✓
Paramus PL [1988]	✓	✓	✓	✓	✓	✓	✓	✓
Piscataway Township Free PL [1989]	✓	✓	✓	✓		✓		
W. Deptford PL, Thorofare [1987]	✓	✓	✓	✓	✓	✓	✓	✓
Wall Branch [1990]	✓	✓	✓	✓	✓			
Westfield Memorial Lib. [1988]			✓	✓				✓
NEW MEXICO								
Los Lunas PL [1987]	✓	✓	✓	✓	✓	✓	✓	✓
New Durham Library Resource Center [1987]	✓	✓	✓	✓	✓	✓	✓	✓
The Public Library, Silver City [1987]	✓	✓	✓	✓	✓	✓	✓	✓
Truth or Consequences PL [1988]	✓	✓	✓	✓	✓			
NEW YORK								
Stevens Memorial Library, Attica [1987]			✓					✓
Babylon PL [?]				✓	✓			
Baldwin PL [1988]	✓	✓	✓	✓	✓	✓	✓	✓
Bayville Free Library [1987]	✓	✓	✓	✓	✓	✓	✓	✓
Broome Cty. PL, Binghamton [?]	✓							
West Branch, Binghamton [1987]								✓
Brentwood PL [1988]	✓	✓	✓	✓	✓	✓	✓	✓
Brighton Beach Branch, Brooklyn [?]	✓	✓	✓	✓	✓			
Brooklyn PL [1988]	✓	✓	✓	✓	✓	✓	✓	✓
Brower Park Branch, Brooklyn [?]	✓	✓	✓	✓	✓			
Clarendon Branch, Brooklyn [?]	✓	✓	✓	✓	✓	✓		
East Flatbush Branch, Brooklyn [?]	✓	✓	✓	✓	✓	✓		
Homecrest Branch, Brooklyn [?]	✓	✓	✓					
McKinley Park Branch, Brooklyn [?]	✓	✓	✓					
Paerdegat Branch, Brooklyn [1987]	✓	✓	✓	✓	✓	✓	✓	✓
Ulmer Park Branch, Brooklyn [?]	✓	✓	✓					
Cambridge PL [1987]	✓	✓	✓	✓	✓	✓	✓	✓
Cazenovia PL [?]	✓	✓		✓	✓			
Center Moriches Free PL [1987]	✓	✓	✓	✓	✓	✓	✓	✓
Cheektowaga PL [?]	✓							
Copiague Memorial PL [1988]	✓	✓	✓	✓	✓	✓	✓	✓
Croton Free Library, Croton-on-Hudson [1988]	✓	✓	✓	✓	✓	✓		
Hammond Library, Crown Point [?]	✓	✓	✓	✓	✓			
Half Hollow Hills Comm. Lib., Dix Hills [1989]	✓	✓	✓	✓	✓	✓		
East Syracuse Free Library [1988]	✓	✓	✓	✓	✓	✓		
West Harrison Library, East White Plains [1991]	✓							
Eden Free Library [1988]				✓	✓			
Gowanda Free Library [1987]	✓	✓	✓	✓	✓	✓	✓	✓
Grand Island Memorial Library [1989]	✓			✓				
Louise Adelia Read Memorial, Hancock [?]	✓			✓	✓			
Harrison PL [1989]				✓	✓			
Highland PL [?]	✓							
E. Fishkill Comm. Lib., Hopewell Junction [1988]	✓	✓	✓	✓		✓	✓	✓
Jericho PL [1988]	✓	✓	✓	✓	✓	✓	✓	✓
Nioga Library System, Lockport [1988]	✓	✓	✓	✓	✓			
Marlboro Free Library [1987]	✓	✓	✓	✓	✓	✓	✓	✓
Melville Branch, Melville [1989]	✓	✓	✓	✓	✓			
Longwood PL, Middle Island [1988]	✓	✓	✓	✓	✓	✓	✓	✓
Montauk Library [1989]	✓	✓	✓	✓	✓			

NAME OF LIBRARY	STAGES							
	1	2	3	4	5	6	7	8
New City Library [1988]				✓		✓	✓	✓
Hillside PL, New Hyde Park [?]	✓							
New York PL/Research Library [1989]	✓	✓	✓	✓	✓	✓		
North Bellmore PL [1988]	✓	✓	✓	✓	✓	✓	✓	✓
North Collins Memorial Library [1990]	✓				✓			
Northport-East Northport PL [?]	✓							
Old Forge Library [1987]	✓	✓	✓	✓	✓	✓	✓	✓
Oriskany PL [1988]		✓	✓	✓	✓			
Ossining PL [1991]	✓		✓	✓				
Overland Park PL [?]	✓							
Patchogue-Medford Library, Patchogue [?]	✓	✓	✓	✓	✓			
Peru Free Library [1987]	✓	✓	✓	✓	✓	✓	✓	✓
Port Washington PL [1992]	✓	✓		✓				
Adriance Memorial Lib., Poughkeepsie [1991]	✓							
Ransomville Free Library [1987]	✓	✓	✓	✓	✓	✓	✓	✓
Brighton Memorial Library, Rochester [?]	✓							
Gates PL, Rochester [1992]	✓							
Lincoln Branch, Rochester [1989]	✓							
Maplewood Branch, Rochester [1991]	✓							
Marketview Branch, Rochester [1991]	✓							
Rochester PL [1992]	✓							
Sully Branch, Rochester [1992]	✓							
West Br./Irondequoit PL, Rochester [1988]	✓	✓	✓	✓	✓	✓	✓	✓
Rockville Centre PL [1989]	✓	✓		✓	✓			
Jervis PL, Rome [1988]	✓	✓	✓	✓	✓	✓	✓	✓
Seneca Nation Library, Salamanca [1987]	✓	✓	✓	✓	✓	✓	✓	✓
Ainsworth Memorial Lib., Sandy Creek [1987]	✓	✓	✓	✓	✓	✓	✓	✓
Mohawk Valley Lib. Assn., Schenectady [1988]	✓	✓	✓	✓	✓	✓		
Schenectady County PL [1990]	✓							
Glenville Branch, Scotia [1989]	✓							
John C. Hart Memorial Lib., Shrub Oak [1989]	✓	✓	✓	✓	✓			
Mundy Branch Library, Syracuse [1988]	✓	✓	✓	✓	✓	✓		
Onondaga Cty. PL, Syracuse [1988]	✓	✓	✓	✓	✓	✓	✓	✓
Valley Cottage Free Library [1988]	✓	✓	✓	✓	✓	✓	✓	✓
Henry Waldinger Memorial, Valley Stream [?]	✓			✓				
Amherst Lib. at Audubon, W. Amherst [1987]								✓
Westhampton Free Library [1987]	✓	✓	✓	✓	✓	✓	✓	✓
Woodstock Library [1988]	✓	✓	✓	✓	✓	✓	✓	✓
NORTH CAROLINA								
Charlotte & Mecklenburg Cty. Lib. [1988]		✓	✓	✓		✓	✓	✓
Harnett County PL, Lillington [1988]								✓
Newport PL [1987]	✓	✓	✓	✓		✓	✓	✓
Rowan PL, Salisbury [1988]								✓
Ashe Cty. Lib., West Jefferson [1987]	✓	✓	✓	✓	✓	✓	✓	✓
NORTH DAKOTA								
Bismarck Veterans Memorial PL [1989]							✓	✓
Enderlin Municipal Library [1988]		✓			✓			
Cavalier Cty. Library, Langdon [1988]								✓
Minot PL [1988]					✓			
OHIO								
Akron-Summit County PL, Akron [1990]					✓			
Green Branch, Akron [1989]	✓							
Norton Branch, Akron [1988]								✓
Portage Lakes Branch, Akron [1990]	✓							
Stanton D. Johns Memorial, Amanda [1987]	✓	✓	✓	✓	✓	✓	✓	✓
Aurora Branch [1989]	✓	✓		✓				
Bellville Branch [1987]	✓	✓	✓	✓	✓	✓	✓	✓
Berea Branch [1988]	✓	✓	✓	✓	✓			
Butler Branch [1987]	✓	✓	✓	✓	✓	✓	✓	✓
Caldwell PL [1988]	✓			✓	✓			
Dorcas Carey PL, Carey [1987]								✓
Chagrin Falls Branch [1988]								✓
Chardon Library [1988]								✓
Geauga West Library, Chesterland [1989]					✓			
Grandview Heights PL, Columbus [1989]	✓	✓	✓	✓	✓	✓		

LIBRARY BUILDINGS 1987

NAME OF LIBRARY	STAGES							
	1	2	3	4	5	6	7	8
Karl Road Branch, Columbus [1988]	✓	✓	✓	✓	✓	✓		
Coshocton PL [1988]	✓	✓	✓	✓	✓	✓	✓	✓
Dayton/Montgomery Cty. PL [1987]	✓	✓	✓	✓	✓	✓	✓	✓
Dayton/Montgomery Cty. PL [1988]	✓	✓	✓	✓	✓	✓	✓	✓
East Cleveland PL [1990]	✓	✓	✓	✓	✓			
Findlay-Hancock County PL, Findlay [1990]	✓	✓		✓	✓			
Franklin PL [1987]	✓	✓	✓	✓	✓	✓	✓	✓
Birchard PL, Fremont [1989]	✓	✓	✓	✓	✓	✓		
Portage District HQ, Garrettsville [1987]	✓	✓	✓	✓	✓	✓	✓	✓
Fairfield Cty. Library, Lancaster [1986]	✓	✓	✓	✓	✓	✓	✓	✓
Lebanon PL [1988]			✓	✓		✓	✓	✓
Leetonia Community PL [?]	✓	✓		✓	✓			
Lexington Branch [1987]	✓	✓	✓	✓	✓	✓	✓	✓
Mansfield-Richland Co. PL [1988]	✓	✓	✓	✓	✓	✓	✓	✓
Ontario Branch, Mansfield [1987]	✓	✓	✓	✓	✓	✓	✓	✓
Minerva PL [1987]								✓
New London PL [1988]						✓		
New Matamoras Branch [1987]		✓	✓	✓		✓	✓	✓
Newark PL [1986]	✓	✓	✓	✓		✓	✓	✓
Newton Falls PL [1987]								✓
Orwell PL [?]		✓		✓	✓			
Parma/Cuyahoga Cty. PL [1987]	✓	✓	✓	✓	✓	✓	✓	✓
Parma Heights Branch [1988]	✓	✓	✓	✓	✓			
Paulding County Carnegie Library, Paulding [?]				✓	✓			
Pemberville PL [1987]	✓	✓	✓	✓	✓	✓	✓	✓
Union Township PL, Ripley [1987]	✓	✓	✓	✓	✓	✓	✓	✓
Sandusky Library [1988]							✓	
Marvin Memorial Library, Shelby [?]	✓	✓		✓				
Warder PL, Springfield [1988]	✓	✓	✓	✓	✓	✓	✓	✓
Streetsboro Branch Library [1988]	✓	✓	✓	✓	✓	✓	✓	✓
Toledo-Lucas Cty. PL [1988]								✓
Mary L. Cook PL, Waynesville [1988]								✓
Wilmington PL [1988]								✓
OKLAHOMA								
Carmen PL [?]								✓
Robt. Williams PL, Durant [1988]								✓
Hobart PL [1987]	✓	✓	✓	✓	✓	✓	✓	✓
Kingfisher Memorial Library [1988]								✓
Miami PL [1987]	✓	✓	✓	✓		✓	✓	✓
Stillwater PL [?]	✓							
Stilwell PL [1988]					✓			
Sac & Fox Library, Stroud [1987]	✓	✓	✓	✓	✓	✓	✓	✓
Tonkawa PL [1988]	✓	✓	✓	✓	✓	✓	✓	✓
Woodward PL [?]	✓	✓	✓	✓	✓	✓		
OREGON								
Hermiston PL [1989]	✓	✓	✓	✓	✓			
Jefferson Co. Library, Madras [1988]	✓	✓		✓	✓			
North Bend PL [1988]	✓	✓	✓	✓	✓			
West Linn PL [1989]	✓		✓	✓	✓			
Wilsonville PL [1988]	✓	✓	✓	✓	✓	✓		
RHODE ISLAND								
East Greenwich Free Library [?]	✓							
South Kingstown PL, Peace Dale [1989]	✓	✓	✓	✓	✓			
Providence PL [1988]	✓	✓	✓	✓	✓	✓	✓	✓
N. Smithfield PL, Slatersville [1988]	✓	✓	✓	✓	✓	✓		
West Warwick PL System [1989]	✓	✓						
SOUTH CAROLINA								
Aiken County PL [1989]	✓	✓	✓	✓	✓	✓	✓	
Andrews Branch Library [1989]	✓	✓	✓	✓	✓			
Kershaw County Library, Camden [1988]		✓			✓			
Charleston County Library [1990]	✓							
Dorchester Road Br., Charleston County [1990]	✓							
Highway 61 Branch, Charleston County [1990]	✓							
Mt. Pleasant Branch, Charleston County [1990]	✓							
Northwoods Branch, Charleston County [1990]	✓							

NAME OF LIBRARY	STAGES							
	1	2	3	4	5	6	7	8
Chester County Library [1988]	✓	✓	✓	✓	✓			
Darlington Cty. Library [1987]	✓	✓	✓	✓	✓	✓	✓	✓
Georgetown County Library [1989]	✓	✓	✓	✓	✓			
Laurens County Library [1989]	✓	✓	✓	✓	✓	✓		
Nancy Carson Library, North Augusta [?]	✓	✓						
Orangeburg County Library [1988]					✓			
Lake Wylie Library, Rock Hill [1988]	✓	✓		✓				
Spartanburg County PL [1989]	✓	✓		✓	✓			
Waccamow Neck Branch Library [1989]	✓	✓	✓	✓	✓			
Wagener Branch [1988]	✓	✓	✓	✓	✓	✓	✓	✓
TEXAS								
Clint W. Murchison Memorial, Athens [1987]								✓
Bedford PL [1987]						✓	✓	✓
Driscoll PL, Corpus Christi [?]	✓	✓	✓	✓	✓	✓		
County-City Library, Crosbyton [1988]	✓	✓	✓	✓		✓	✓	✓
Dickinson PL [1987]						✓	✓	✓
Ennis PL [1987]	✓	✓	✓	✓	✓	✓	✓	✓
Diamond Hill/Jarvis Branch, Fort Worth [1988]	✓	✓	✓	✓	✓			
Helen Hall Library, League City [1988]	✓	✓	✓	✓	✓	✓	✓	✓
Lewisville PL [?]					✓			
Mesquite Main Library [1987]	✓	✓	✓	✓	✓	✓	✓	✓
North Richland Hills PL [1987]								✓
Plano PL [1989]						✓		
Round Rock PL [1988]								✓
The Colony PL [1987]	✓	✓	✓	✓		✓	✓	✓
VIRGINIA								
Sherwoor Regional Library, Alexandria [1990]	✓	✓	✓	✓	✓			
George Mason Regional Lib., Annandale [1993]	✓	✓		✓				
Bassett PL [?]	✓		✓	✓	✓			
Chesapeake PL [1988]	✓	✓	✓	✓	✓			
Kings Park Community Library, Burke [1991]	✓	✓		✓				
Centreville Regional Library [1992]	✓	✓	✓	✓				
Chantilly Community Library [?]	✓	✓	✓	✓				
Herndon Community Library, Fairfax [?]	✓			✓				
Gloucester Library [1987]	✓	✓	✓	✓	✓	✓	✓	✓
Eastern Loudoun Library, Leesburg [1990]	✓	✓	✓					
Leesburg Library [1990]	✓	✓	✓	✓	✓			
Thomas Balch Library, Leesburg [1991]	✓	✓	✓		✓	✓		
Lorton Community Library [1989]	✓	✓	✓	✓	✓	✓		
Lovettsville Library [1989]	✓	✓	✓					
Smyth-Bland Regional Library, Marion [1988]			✓	✓	✓			
Middleburg Library [1989]	✓	✓	✓					
Purcellville Library [1990]	✓	✓	✓	✓	✓			
Smithfield PL [1988]	✓	✓	✓	✓	✓			
Victoria PL [?]					✓			
Patrick Henry Community Library, Vienna [1993]	✓	✓		✓				
Virginia Beach PL [1987]	✓	✓	✓	✓	✓	✓	✓	✓
WASHINGTON								
Cheney Community Library [1988]	✓	✓	✓	✓	✓	✓		
Coupeville PL [1988]	✓	✓	✓	✓	✓	✓		
Mountlake Terrace PL [1988]	✓	✓	✓	✓	✓	✓		
Des Moines Library, Seattle [1988]	✓	✓	✓	✓	✓	✓	✓	
University Library, Seattle [1987]								✓
W. Seattle Community Lib., Seattle [1987]								✓
WISCONSIN								
Burlington PL [1987]	✓	✓	✓	✓	✓	✓	✓	✓
Hudson PL [?]	✓	✓						
Manitowoc PL [1991]	✓	✓						
Plymouth PL [1988]	✓	✓	✓	✓	✓	✓		
Shawano City-Cty. Library [1989]	✓							
Waukesha PL [1988]	✓	✓	✓	✓	✓	✓	✓	✓
WYOMING								
Cokeville Branch [1987]								✓
Encampment/Riverside Library [1988]								✓
Crook County PL, Sundance [?]	✓							

LIBRARY BUILDINGS 1987

Academic Projects

NAME OF LIBRARY	STAGES							
	1	2	3	4	5	6	7	8
ALABAMA								
Science/Engineering Lib., Univ. of Alabama, Tuscaloosa [1989]	✓	✓	✓	✓	✓			
ALASKA								
Univ. of Alaska-Southeast, Juneau [1989]	✓	✓	✓	✓	✓	✓	✓	✓
ARIZONA								
Arizona State Univ., Glendale [1987]	✓	✓	✓	✓	✓	✓	✓	✓
Arizona State Univ., Tempe [1989]	✓	✓	✓	✓	✓	✓	✓	✓
Univ. of Arizona, Tucson [1988]	✓	✓	✓	✓	✓	✓	✓	
Univ. of Arizona, Tucson [1990]	✓	✓	✓	✓	✓			
ARKANSAS								
Ouachita Bapt. Univ., Arkadelphia [1987]	✓	✓	✓	✓	✓	✓	✓	✓
CALIFORNIA								
California State Univ., Chico [1987]	✓	✓	✓	✓	✓	✓	✓	✓
Univ. of California-Davis [1991]	✓	✓	✓	✓	✓	✓		
California State Univ., Long Beach [1989]	✓	✓	✓	✓	✓	✓		
California State Univ., Northridge [1989]		✓	✓	✓	✓			
Mills College, Oakland [1989]	✓	✓	✓	✓	✓			
Hopkins Marine Station Lib., Stanford Univ., Pacific Grove [1989]	✓		✓	✓	✓			
Univ. of California-San Francisco [1990]						✓		
Stanford Univ., Stanford [1988]			✓	✓		✓	✓	✓
Stanford University [1992]	✓	✓						
Cal. State–Stanislaus, Turlock [1989]	✓	✓	✓	✓	✓	✓	✓	✓
CONNECTICUT								
So. Connecticut State, New Haven [1987]	✓	✓	✓	✓	✓			✓
FLORIDA								
Florida Intl. Univ., North Miami [1987]	✓	✓	✓	✓	✓	✓	✓	✓
Florida State Univ., Tallahassee [1988]	✓	✓	✓	✓	✓	✓	✓	✓
GEORGIA								
Mercer University, Macon [1989]								✓
So. College of Technology, Marietta [1987]	✓	✓	✓	✓	✓	✓	✓	✓
ILLINOIS								
Southern Illinois Univ., Carbondale [1987]	✓	✓	✓	✓	✓	✓	✓	✓
Augustana College, Rock Island [1989]	✓	✓		✓	✓	✓		
INDIANA								
Univ. of Notre Dame Law Sch. [1987]								✓
Indiana Univ. at South Bend [1988]	✓	✓	✓	✓	✓	✓	✓	✓
KANSAS								
Wichita State University [1989]	✓	✓	✓	✓	✓	✓	✓	✓
KENTUCKY								
Kentucky State Univ., Frankfort [1988]	✓	✓	✓	✓	✓	✓	✓	✓
MARYLAND								
Univ. of Maryland, College Park [1989]	✓	✓	✓	✓		✓	✓	✓
Western Maryland Coll., Westminster [?]	✓			✓	✓			
MASSACHUSETTS								
Northeastern Univ., Boston [1990]	✓	✓	✓	✓	✓			
Lib. on the History of Women in America, Radcliffe College, Cambridge [1988]	✓	✓	✓	✓	✓	✓	✓	✓
Peabody Institute, Peabody [1989]	✓				✓			
Babson College, Wellesley [1987]	✓	✓	✓	✓	✓	✓	✓	✓
Assumption College, Worcester [1988]	✓	✓	✓	✓	✓	✓	✓	✓
MICHIGAN								
Wayne State Univ., Detroit [1990]	✓	✓	✓	✓	✓			
Bio-Medical Library, Michigan State Univ., East Lansing [1991]	✓	✓	✓	✓				
Hope College, Holland [1987]	✓	✓	✓	✓	✓	✓	✓	✓
Oakland Univ., Rochester [1989]	✓	✓	✓	✓	✓	✓	✓	✓
MINNESOTA								
Macalester College, St. Paul [1988]	✓	✓	✓	✓	✓	✓	✓	✓
MISSOURI								
Univ. of Missouri-Columbia [1988]								✓

NAME OF LIBRARY	STAGES							
	1	2	3	4	5	6	7	8
Maryville College, St. Louis [1987]								✓
Univ. of Missouri, St. Louis [1990]	✓	✓	✓	✓	✓			
NEW JERSEY								
Serin Physics Library, Rutgers Univ., Piscataway, N.J. [1989]		✓	✓	✓	✓			
NEW YORK								
Medgar Evers Coll./CUNY, Brooklyn [1988]	✓	✓	✓	✓	✓	✓	✓	✓
Canisius College, Buffalo [1988]						✓	✓	✓
Sch. of Hotel Administration Lib., Cornell Univ., Ithaca [1988]								✓
Cornell Univ. Law Lib., Ithaca [1988]								✓
John Jay Coll. of Criminal Justice, New York [1988]	✓	✓	✓	✓	✓	✓	✓	✓
Niagara University [1988]	✓	✓	✓	✓	✓			
Eastman School of Music, University of Rochester [1988]	✓	✓		✓	✓			
Univ. of Rochester [1987]			✓					
Univ. of Rochester [1987]			✓					
Univ. of Rochester [1987]			✓					✓
Lib. for Science & Engineering, Univ. of Rochester [1987]								✓
NORTH CAROLINA								
Duke University, Durham [1987]	✓	✓	✓					✓
North Carolina State Univ., Raleigh [1988]	✓	✓	✓	✓	✓	✓	✓	✓
OHIO								
Geology/Physics Library, University of Cincinnati [1988]	✓	✓	✓		✓			
Ohio Mechanics Institute/College of Applied Science, University of Cincinnati [1988]	✓	✓		✓	✓			
Wright State Univ., Dayton [1988]	✓	✓	✓	✓	✓	✓	✓	✓
Shawnee State Univ., Portsmouth [1989]	✓	✓	✓	✓	✓			
OREGON								
Architecture & Allied Arts Lib., University of Oregon, Eugene [1990]	✓	✓	✓	✓	✓			
Science Lib., Univ. of Oregon, Eugene [1990]	✓	✓	✓	✓	✓			
University of Oregon, Eugene [1991]	✓	✓						
George Fox College, Newberg [1988]	✓	✓	✓	✓	✓	✓	✓	
Portland State Univ. [1989]	✓	✓	✓	✓				
PENNSYLVANIA								
Muhlenberg Coll., Allentown [1988]	✓	✓	✓	✓	✓	✓	✓	✓
Allentown Coll., Center Valley [1987]	✓	✓	✓	✓	✓	✓	✓	✓
SOUTH CAROLINA								
Francis Marion Coll., Florence [1989]	✓	✓	✓	✓	✓	✓	✓	✓
TENNESSEE								
Tennessee Wesleyan Coll., Athens [1987]	✓	✓	✓		✓	✓	✓	✓
Tennessee Tech Univ., Cookeville [1989]	✓	✓	✓	✓	✓	✓	✓	✓
TEXAS								
Science-Technology Library, Univ. of Texas, Arlington [1988]	✓	✓	✓	✓	✓	✓	✓	✓
West Texas State Univ., Canyon [?]	✓			✓				
Texas Wesleyan Coll., Fort Worth [1988]								✓
VERMONT								
Vermont Law School, S. Royalton [1988]	✓	✓		✓	✓			
VIRGINIA								
Randolph-Macon Coll., Ashland [1987]	✓	✓	✓	✓	✓	✓	✓	✓
Mary Washington Coll., Fredericksburg [1988]	✓	✓	✓	✓	✓	✓	✓	✓
Norfolk State University [1988]		✓		✓	✓			
WASHINGTON								
Whitworth Collge, Spokane [1990]	✓	✓		✓	✓			
WISCONSIN								
Univ. of Wisconsin-Madison [1990]	✓	✓	✓	✓	✓			
Alverno Coll., Milwaukee [1988]				✓	✓	✓		

A possible end to library growth woes

Robots in the Library: Automated Storage and Retrieval Systems

By John Kountz

INCREDIBLE ADVANCES in the application of electronic data processing to library operations have occurred over the past 20 years. Manual paper files have been reduced dramatically. Similarly, responses to patron inquiry are characterized by significant improvements in accuracy and speed. The physical library's "last mile" problem seems to be the requirement that library facilities be enlarged periodically to hold ever-growing collections. Not that libraries haven't confronted the problem; they have. In fact, like the dabbling in automation libraries pursued from 1930 through 1960, the approach to material storage presented here was sampled by a select few libraries in a primitive form in the early and mid-1970s (see Ellsworth, bibliography).

However, there is a vast difference between sampling a technology and applying it with the vigor that profit margins spur in private industry. For example, the industrial community simply couldn't afford to operate manual warehouses. Their solution is called material handling. The material handling techniques that have been successfully implemented in the industrial environment over the last decade can be applied to library materials with equal effectiveness.

Library storage

Libraries buy, prepare for general use, and store information which, in itself, is in a diversity of physical formats. Dominant among the physical formats of information has been (and continues to be) the printed book. It follows, then, that the primary storage component of all libraries is designed to accommodate books. In the United States, most library storage has a secondary functional requirement: that of displaying stored materials in a logical sequence for the library's public.

To support these two functions, book storage in U.S. libraries has been accomplished through ranges of open shelves. On these shelves the books are arranged vertically, in single file with their spines toward the aisle to permit identification. To facilitate browsing, the books are arranged in a sequence based on subject content (typically Dewey or Library of Congress call numbers) to bring together all of the books on a given subject.

This, for most libraries generally, is the level to which library material storage techniques have evolved (cardboard boxes in the back room notwithstanding). Even with the inefficiencies of open-shelf storage, those alternatives, which have emerged and been popularly received by libraries, are based on reducing the width of aisles between the shelves or increasing the height of the shelving.

Library service in the United States has been vested in open stacks since libraries turned from the "write it on a slip of paper and we'll try to find it" of Henry Labrouste to the "go find it yourself" of Angus Snead MacDonald. In the minds of many, the open stack is the only stack. For recent, high-demand materials, they are right! A retriever system does not preempt the open stack. Rather it complements the open stack and actually will improve the user's chances of finding items. This is achieved by retiring little used materials into the retriever and, in so doing, reducing the number of dead and dying items that must be winnowed to satisfy a search. In fact, because of computer control, the use of items retired to the retriever is fully documented. As a result, periodic candidates for weeding lists can be prepared by those automated storage and retrieval (AS/R) units for items not used within a period of time designated by the library.

Industrial material storage

Industrial storage techniques have undergone a major revolution over the past ten years. Electromechanical pallet and bin handling robots have been teamed with computers to make the manual warehouse obsolete. Nor are the users of these machines and systems limited to *Fortune* 500 companies.

The machines and shelving techniques that are used in industry are deceptively elegant (Figure 1). Items to be stored are placed in bins and the bins are placed in an industrial rack assembly. A computer-controlled robot moves into and out of the rack assembly to remove and replace the bins. Each stored item is assigned to

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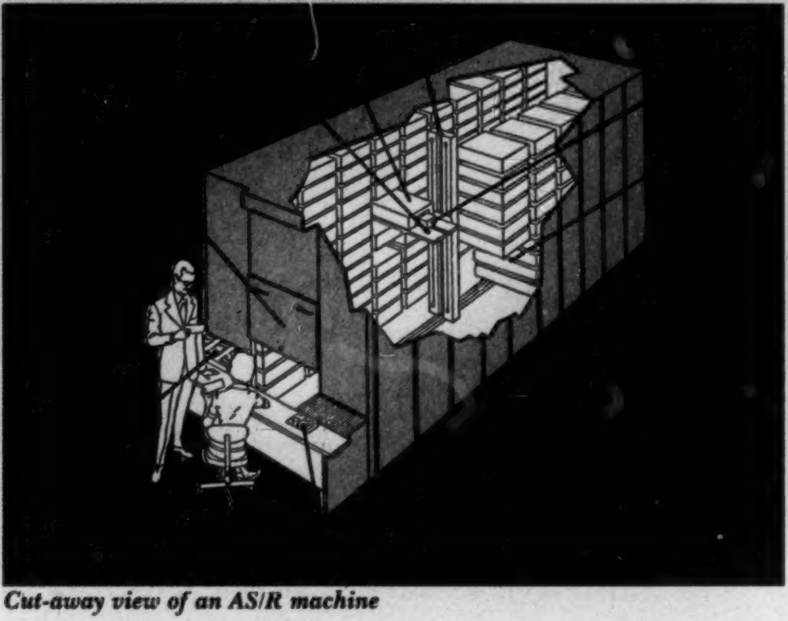

Cut-away view of an AS/R machine

a bin and each bin is assigned to a location. On request for an item the computer communicates the bin location to the robot. The robot retrieves the bin, and carries it to a work station where an operator, guided by a video display, takes the item from the bin and gives it to the requester. Elapsed time for this operation is typically little more than one minute. Returning the item to storage, as would be required in libraries, follows essentially the reverse of this procedure and takes about the same amount of time.

Benefits of AS/R

The AS/R approach to the retrievable storage of books offers a number of attractive operational efficiencies for libraries. In addition, the miniload version of automated storage and retrieval systems can also make significant contributions to library service, be it public or academic. Most significant, though, is the economic benefit of AS/R techniques applied to libraries both in initial cost and the cost of operation.

In the area of operating efficiency, for example, because computer control is used, items in high demand are sensed by the system and, under software control, are moved to the front of the rack assembly as they are used and returned to the unit. This capability reduces retrieval time for high-use materials, while little used items, through this same software, gravitate to the rear of the unit Items need not be shelved by Dewey or LC, rather they could be stored in random format, perhaps by size. In any event, the library can designate its storage scheme and the system will process the materials accordingly. For special interest groups or individual classes, books pertaining to a specific subject or representing a particular point of view could be requested in advance of their use and the AS/R would prepare a "kit" comprised of those items. The accuracy and speed with which specific materials can be requested and received is the basis for this level of support.

Connected to a second computer system, such as an automated public access catalog (PAC) or circulation control, a library user could designate a selection of titles on a subject using a computer terminal with confidence that items not checked out or in the open stacks will be made available within minutes.

This mode of operation contrasts vividly with current practice, wherein the library user must go to the stacks and "find" the item(s)—stacks, it must be added, which have been ravaged by others as they hunt their own materials, and which may or may not have been set straight through shelf reading before each user attack. The ability of the user to request specific titles with confidence in their timely availability is an inestimable service enhancement to any library.

Conservation considerations

The area in which the storage/retrieval machine works and in which the materials are stored is closed to staff and public alike. As a result, maintenance usually required for public areas is not necessary. From a preservation viewpoint, extensive lighting is not required, and once suitable temperature/humidity levels have been achieved, they are easily and economically maintained. These factors yield a facility that is inexpensive to operate and maintain while contributing to the preservation of rare materials. And, with regard to reliability, manufacturers and industrial users alike maintain that over 98 percent uptime is typical for miniload AS/R systems (as would be used by libraries). Finally, although people aren't usually allowed inside, periodic, scheduled preventive maintenance is the key to reliability.

Operational benefits aside, the real zinger, for libraries, is the cost and capacity of an AS/R system when compared to the equivalent cost and capacity of a typical library building. As a function of the capacity of an AS/R system and the planned and coordinated loading of materials into it, densities approaching 200 books per square foot are possible. Thus, properly designed, the system could absorb a significant portion of the typical library's existing collection, plus materials added over a ten-year period, in an extremely small area (e.g., 600,000 books in less than 4000 square feet). The result is a viable approach to zero open-stack collection growth.

And, since the AS/R system maintains exact statistics on the use of each item stored in the system, a list of unused materials can be requested from the system to guide deselection. The result is the ability to cap future library requirements for ever larger facilities. Finally, comparative operating costs for each of the typical library storage techniques and AS/R units are presented in Table 1. How is it possible to store for less and have the materials available in about one minute? Quite simply, depending on what is stored, AS/R units are 35 feet or more high, and support storage densities 19 or more times those traditionally achieved using open stacks (wherein height is constrained by human reach), and six times the density of moving aisle approaches (which are also limited by human reach).

Clearly this density of storage coupled with the delivery of requested materials in about one minute compares favorably to the common library user's experience of going into the library stacks and not finding the material at all.

How it looks

If any of the foregoing has captured your imagination, let's turn to

"What (will) these things look like?" and, "How big are they?" All in all, four basic components comprise the physical system (Figure 1): 1) the robot and floor pad with rails; 2) the industrial rack assembly and bins; 3) the workstation; and 4) computer controls.

The workstation need not be located at the same floor level as the rail on which the robot travels. Bins can be delivered to a workstation situated at any point within the robot's vertical travel limits. Bins need not be delivered directly to a workstation at the end of each aisle. Rather, conveyers of one type or another can receive the retrieved bin and transport it to a workstation at some distance from the storage facility. However, not only are remote workstations more expensive to build initially, the increased complexity of "remote" bin delivery could be a source of lower system reliability, higher maintenance costs, and an increase in the overall time from request to delivery for bins retrieved from the rack assemblies. Remembering that multiple delivery points were a contributing factor to the downfall of the pioneer Randtrievers (see Ellsworth) installed in libraries, history need not repeat itself.

Factors influencing size

There are two major factors peculiar to libraries that affect the size of the facility: 1) what will be stored and 2) how often will it be used.

What is to be stored is strictly a local decision. However, once established, the physical size of the materials to be stored must be determined in terms of how many items there are of a given height.

Since you can anticipate storing books, there are students of this sort of thing such as Freemont Rider and Keyes Metcalf to draw on. Thus, it has been asserted that about 95 percent of the books in a typical library collection are nine inches or less from fore-edge to spine. Similarly, books have an average width of 1.4 inches and 90 percent of them are 11 inches high. Also, it has been documented that about 85 percent of typical bound periodicals are 12.75 inches high or less and average 1.8 inches in width. Needless to say, the dimensions are known or can be readily obtained for boxed reels of microfilm, microfiche, micro-opaques, and the realia/exotica from the collection you anticipate storing.

By using statistics from the literature, or actually measuring the materials in the collection of the target library, it is possible to begin calculating the number of bins required. The bins themselves, of course, can be as plain pipe rackish or custom sculpted as you may conceive.

In any event, be prepared for interesting design sessions, and beware of the backyard tinker. Agree with the concept that an articulated capsule incorporating silica gel packets and resembling four feet of traditional solid oak library shelving would be A-OK. Then ask the advocate how long it would take to deliver 20,000 of them for under $70 each. Throughout such interludes, don't lose sight of the fact that while there are standard sizes based on the dimensions of the bin extractor mechanism, the bins you get will probably be fabricated for your installation and can be built to match the requirements of the materials in your library's collection.

The second factor, how often will it be used, leads to the peak retrieval rate you expect for materials in the retriever. This is a number reflecting the items per hour that the system must be able to handle. Since there are no hard-and-fast rules at this time, it is suggested that a review be made of in-house use and circulation statistics.

The peak retrieval rate, in this instance, means the largest number of items to be withdrawn from the stacks in a given time (e.g., 15 minutes), regardless of why, during the most active period of library use. While certainly not a rule of thumb, analyzing collection use statistics from two large academic libraries (collections over 650,000 volumes each) has provided some initial guidelines to the components of peak use.

For example, from this analysis a relationship was identified between recorded circulation and in-house use (the later requiring staff reshelving). It appears that 2.35 books are taken from the shelf and replaced by the user for every book circulated and/or taken from the shelf and left for staff to reshelve.

Counting costs

As with all good things, a price does apply. By this time, I'm sure you have deduced (correctly) that the AS/R system is just a machine that may be connected to another system and requires housing. As a result, cost follows the level of sophistication required of the retrieval system and the housing. There are areas of cost that can only be identified here, since the dollar amount they represent is a reflection of local requirements, local labor and material rates, and the value of the dollar at the time decisions are made. The areas for which you alone can determine local costs are:

1. Architect and engineer fees for site survey, preliminary planning, final drawings, specifications, and the like.

2. Software development, if required, to connect the system to an existing computerized library system such as circulation control or public access catalog. Retriever systems can be as dumb as an operator-driven keyboard or as smart as computers can make them; there are hundreds of thousands of dollars separating the two extremes. Know what you want and can afford before you jump in with both feet.

3. Construction costs are in direct proportion to the aesthetics of the structure. If you are attempting to preserve architectural symmetry, it could be expensive. If the existing building is on a view point or other geologic feature, engineering costs may exceed the price of the retriever system alone.

Table 1

Estimated Annual Cost To Store 600,000 Books in a [illegible] [illegible]

Type	Sq. ft.	AC/ Lights	Janitor	Reshelve Oper.	Power	Prev. Maint.	Total	Unit Cost
Library stacks	60,000	63,000	81,420	24,000	0	0	168,420	0.281
Industrial shelving	40,000	42,000	54,280	24,000	0	0	120,280	0.200
Compact (motorized)	20,000	10,500	13,570	24,000	2,700	3,000	53,770	0.090
AS/RS (motorized)	3,750	863	1,115	27,170	7,642	4,000	40,790	0.068

On the other hand, if you have surveyed your storage needs carefully, the numbers you will have prepared can be used by any of the several companies selling miniload AS/R systems to provide a reasonably accurate cost estimate. Each firm has its algorithm. For those of you who can't wait and want a ball park insight into the cost of a system right now (without reference to architects, software development, or construction) you can multiply: the total number of bins under 12" high by $60; the number of bins 12" high or higher by $78; the number of aisles by $110,000; and the total number of feet of aisle by $125. Add up the products and the result is a nominal estimate for the rack assembly, bins (all sizes), robot, tracks and rails, and local "end of aisle" control (as of 1985). Ah, ah, ah, this is just a ballpark figure! Don't reach for the checkbook without consulting the companies for exact prices.

Operating and maintenance costs depend on how many retriever columns your system has, the volume of retrievals performed, and local wage scales. It also depends on the air conditioning you need locally. In addition, if, for example, there are five or more columns in your system, a full-time maintenance person may be required. Your supplier, however, and the experience of local industrial users will be your best source of information for maintenance costs although their experience will be with systems in constant use (typically, 24 hours per day). In any event, don't overlook contracting for maintenance if you are not into empire building (and expenditures for benefits, etc.).

Start-up costs will include loading the system which, depending on the library, may entail labeling and measuring each item, then physically moving the materials into the system. And, since the system will be new, there will be the sprinkling of minor problems and the catastrophic interludes we've all been through. For these moments of excitement, no dollar amount can be assigned.

And that's that! Automation in libraries has addressed paperwork and has been successful. Automation and robotics have been deemed successful in industry for over a decade. The techniques and systems stemming from automated warehousing are fully applicable to libraries. The need, peculiar to libraries, for ever-expanding facilities may trigger a revolution in library buildings and open the way toward vastly improved library service for generations to come.

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Trends emerge from two decades of LJ*'s statistics on library construction*

Financing Public Library Buildings

By Richard B. Hall

THERE WERE only intermittent attempts to chronicle the capital expenditures for U.S. public library buildings until 1968, when Hoyt Galvin first developed a comprehensive and consistent method of collecting this data published annually in the December architectural issue of *LJ*. The profession is indebted to Galvin for this massive, 20-year effort.

The *LJ* data provide a statistically significant, reliable sample, not the total picture. Further analysis of the overall expenditures for public library construction and the individual sources of funds reveals other useful information.

Table 1 summarizes expenditures for public library construction by source of funds. It shows that the amount spent on public library construction has varied significantly over 20 years. Despite that, with a few exceptions, the overall percentage from each source has remained relatively stable. From the outset, 90 percent of all capital development funds have come from the public sector, with over 70 percent coming from local public funds. On the average, state funds have accounted for less than five percent and private funds less than nine percent of all sources of funds for construction. Federal funds have varied most over the years, but on the average have accounted for approximately 16 percent of all expenditures.

Federal funding sources

Federal funds, although the most unpredictable, have significantly reduced the local funds needed for some capital projects and stimulated local, private, and state spending for public library facilities, particularly with the advent of LSCA Title II.

Until this year, the greatest expenditures for U.S. public library construction of all time took place in 1979. Nearly $200 million was spent, with an astounding $81.8 million (42 percent) coming from the federal government. About four times the normal federal share, it was the result of two federal funding initiatives.

Some $6 billion came from the Local Public Works Program of the Public Works Employment Acts of 1976 and 1977 (P.L. 94-369 and 94-447 respectively). Of the $6 billion, public library building projects received in excess of $133 million.[1] For communities that were prepared to begin construction immediately, this federal program was a bonanza. It required little or no local matching funds, and public libraries were reasonably successful in competing for these funds locally. In addition to public works funds, Congress approved an extension of the State and Local Fiscal Assistance Act (P.L. 94-488) providing an authorization of over $25 billion of federal revenue sharing.

Federal revenue sharing funds have always represented a substantial portion of the federal funds going into public library construction. Unfortunately there is no consistently collected data to show the exact amount or percentage. Galvin[2] did report in 1976 that approximately 73 percent of all federal funds came from local general revenue sharing during that year.

We may never see federal participation at the levels of the 1970s again. After this record level of expenditures, the federal percentage dropped consistently until 1985. It then recovered somewhat with the revitalization of LSCA Title II funds transferred from the federal FY 1983 Emergency Jobs Act (PL 98-8) appropriation of $50 million.

Federal share reached 20-year lows in 1983 (6.7 percent) and 1984 (4.1 percent), and again in 1987 (4.8 percent), dipping as low as $4.5 million in 1984. In these years drastic reductions in federal capital funds threatened to return public library construction to levels similar to the 50 years when it languished, from the end of Carnegie philanthropy until LSCA Title II.

Signaling the importance of federal funding over the last 20 years, *Public Library Construction 1965–1978* reports that LSCA Title II funded 1,917 library construction projects with $174,318,366 coming from Title II and $21,469,975 from other federal sources. This stimulated the investment of $528,893,615 in state and local matching funds.[3]

In its 1986 Annual Report on LSCA Special Activities[4] the United States Office of Education updates the figures and reports that 2850 public library buildings were built through LSCA Title II, utilizing almost $265 million from federal sources.

Much of the $50 million in federal Emergency Jobs Act funds is recorded in the 1985 and 1986 *LJ* statistics, and there will be more federal funds showing up in upcoming years due to federal LSCA Title II appropriations of $25 million for FY 1985, $21,102,000 for FY 1986, and $22,050,000 for FY 1987.

This resurrection of federal public library construction funding is most welcome since the statistics in the 1986 Annual Report on LSCA Special Activities shows that federal funds usually stimulate more than twice the amount of state and local matching funds. Many state construction programs were stimulated by either the demise of the LSCA Title II program in 1973 or by its resurrection in the early 1980s.[5] It is little wonder that state library administra-

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FY	Total $	State $	Federal $	Local $	Private $
68	91	0.9	20.8	68.9	n/a
69	107	1.1	26.6	74.1	5.4
70	98	3.1	22.9	58.3	13.3
71	76	3.2	13.4	53.1	6.5
72	95	1.4	11.8	74.1	7.2
73	101	2.6	8.7	77.5	11.9
74	83	1.8	7.6	67.4	6.1
75	81	2.8	11.5	58.9	7.7
76	125	7.5	27.4	77.4	12.4
77	132	7.1	20.4	95.6	8.6
78	91	6.9	17.4	57.6	9.1
79	194	15.3	81.8	83.9	12.8
80	120	4.8	33.3	73.1	9.1
81	140	4.9	22.4	100.7	12.1
82	157**	4.3**	17.4	112.6	22.9
83	82	11.3	5.5	58.2	7.1
84	110	7.1	4.5	94.0	4.0
85	140	5.8	17.9	97.0	19.3
86	158	8.9	11.1	117.0	20.8
87	217	12.8	10.4	180.0	13.4
TOTAL	2398	114	393	1679	210
AVG.	120	5.7	19.6	84.0	10.5
%	100	4.8	16.4	70.0	8.8

* As reported in six-year summaries of the architectural issue of *LJ*

** A State Library Building was deleted from data in 82

Years	Total $	State $	Federal $	Local $	Private $
1968 to 1977	98.9 100%	3.1 3%	17.1 17%	70.5 72%	7.9 8%
1978 to 1987	140.9 100%	8.2 5.8%	22.2 15.8%	97.4 69.1%	13.1 9.3%

tors look annually toward Washington with concern.

Federal funding for public library construction is threatened again by initiatives like the Balanced Budget Control Act of 1985 (PL 99-177, known as Gramm-Rudman-Hollings). Unless there is a turnaround, this budget reduction effort may kill the LSCA Title II program—similar to the loss of the federal revenue sharing program—and will likely create a trend toward decreased federal funding for public library construction.

Since federal funding has been drying up in recent years, the question is whether any other source can replace the federal contribution. The LSCA Title II program has been, and is, a tremendous capital development tool for public libraries, but as the past has shown, there is no guarantee that it will be in effect from year to year. It may well be that the only effective substitute for this program, or for federal funding in general, is the development of an ongoing state program for public library capital outlay.

State funding sources

Table 2 shows the average annual expenditures and percentages of the total by source for the first ten years of *LJ* data compared to the last ten years. This division of the data reveals what may be a trend in state support of library construction.

While the state-level contribution is the smallest percentage, it has almost doubled from the first decade to the second. State funds increased from $31.5 million in the early years to $82.1 million in the later years. This represents over a two-and-half-fold increase for state funds, making it the category with the largest percentage increase between the two decades. In Figure 1 it appears that state funding is on the increase over the long run. Two questions remain: Will state funding continue to grow? Will it ever be sufficient to replace the lost federal funds?

A survey of various state library agencies indicates that state funding for capital development will continue to grow, probably significantly. Approximately $130 million of recently appropriated state funds for public library buildings should begin to appear over the next few years in the *LJ* statistics as the projects are completed.

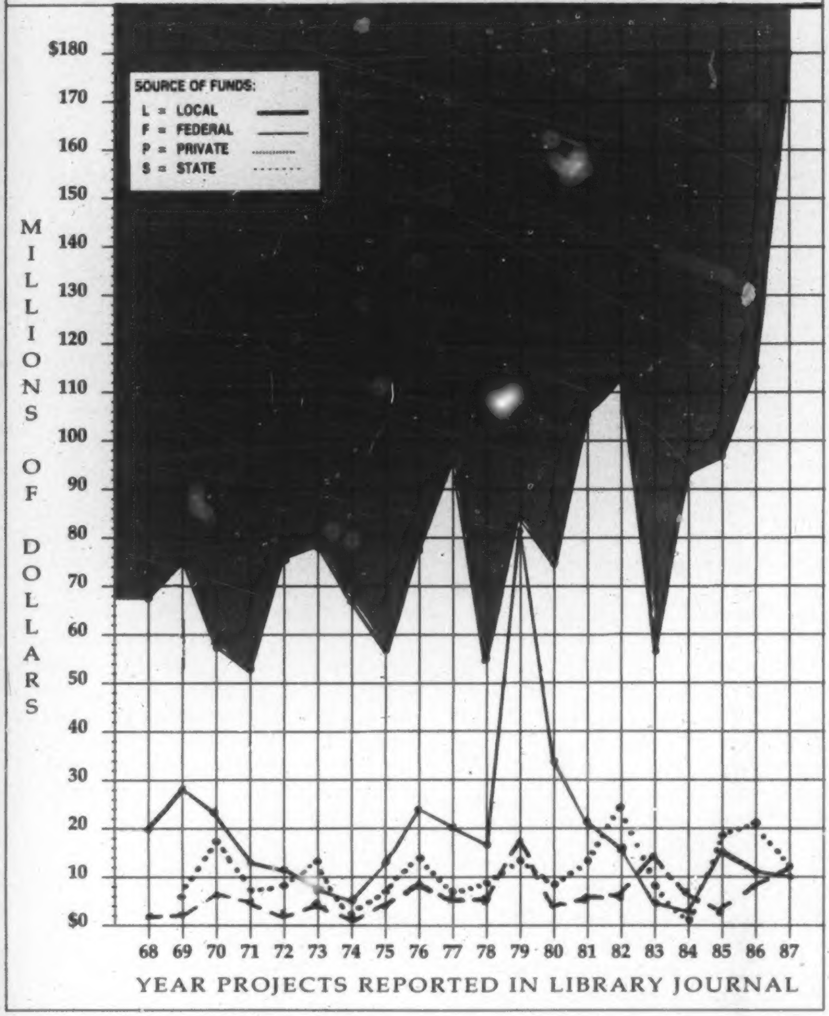
It is interesting to note that this figures of $130 million exceeds the overall amount of state funds ($113.6 million) reported for the last 20 years of data collection in *LJ*. Since the state-funded building projects are on different timetables for development, it is difficult to say when these appropriations will appear in the *LJ* statistics. A two- to four-year period will probably cover most of the projects recently funded with state funds. This means that the statistics from 1988 to 1991 should show state funds in the range of $20 to $30 million annually.

Over the years, state capital outlay programs have fulfilled an important role as seed money for local fundraising, similiar to the way that federal funds have stimulated both state and local construction funds.

Many states have had regular annual appropriations for capital outlay over the years, but recently new state construction programs have begun, due in some part to the resurgence of interest in public library construction stimulated by the recent though limited appropriations of the LSCA Title II program. States which have recently had new first-time appropriations for construction purposes are: New York, Illinois, Nevada, North Carolina, Massachusetts, and Alabama. Further, other states, such as California, have legislation in progress that may culminate in substantial new state library construction funds.

The advantages of state construction programs are many. Being closer to home, they are easier to influence and administer. Because of

FIGURE 1:
FUNDS FOR PUBLIC BUILDINGS BY SOURCE



their proximity to local politics, state programs are less likely to end abruptly, without warning. All areas of the state benefit, and state construction programs return public tax dollars to local communities in a highly visible manner. It is this local control and visibility of a state matching program which makes it a natural partner for library capital improvement projects.

Local sources

The major and most stable source of funding for public library construction has always been local public revenues. Over the past 20 years, 70 percent of all funds expended for public library construction have consistently come from local public revenues.

Although local funding sources have been the most consistent over the 20-year period, there have been unusually high or low deviations in several years which illustrate a direct relationship to federal funds. In 1984, of the $110 million spent for public library construction, $94 million or 85 percent came from local sources. This is the highest percentage of local funds for all 20 years because the federal share of $4.5 million was at an all time low of four percent. This happened in 1974 and 1987 with local shares of 81 percent and 83 percent, and federal shares of nine percent and 4.8 percent, respectively.

In 1979 when the local share was the lowest (43 percent), the percentage of funds from federal sources was at its all-time high (42 percent), the only year when another source of funding came close to matching local sources.

Local bond issues

The greatest number of projects funded from only one source are funded by local bond issues. The projects usually tend to be the larger ones or part of a large bond issue that funds numerous smaller library buildings. While it is difficult to determine the exact percentage of local funds raised by public bond issues compared to those raised from direct operating revenues, the local public bond issue is probably the most common method of raising large amounts of capital for library improvements. There has never been a serious attempt to analyze the percentage of funds from local bond issues as opposed to other local sources.

There have only been a few attempts to systematically analyze the reasons local library bond issues succeed or fail. Herbert Goldhor, recently retired director of the Library Research Center of the University of Illinois, reported that over two-thirds of the library bond issues held in the Illinois from 1980-85 were successful.

This encouragingly high rate of voter approval for library bond issues is further supported by data from Goldhor's unpublished national survey of *Public Library Referenda in 1985*. Again, about two-thirds of all local bond issues held were successful in the states participating in the survey.

LJ and the author have begun collecting data on local referenda for public library buildings in an attempt to fill this void in the literature. As more and more of the burden of funding is placed at the local level, it will be important to share various creative methods of financing.

Private sources

Partnerships with the private sector have been around for a long time and they are fashionable again. Private philanthropy of the kind sponsored by Andrew Carnegie has always been the backbone of private sector financing for public library buildings. Around the turn of the century, the private sector provided its highest percentage of funding for public library buildings, but as the Carnegie program declined so did the dominance of private fundraising for capital improvements. Never again would the private sector regain its preeminence in public library construction.

In the last 20 years, building funds from the private sector have averaged less than nine percent. While this percentage has varied from a low of 3.5 percent in 1984 to a high of 14.5 percent in 1982, it appears to be relatively stable over the 20-year period. Even though recent years' percentages are high (14 percent in 1985 and 13.2 percent in 1986), private sources do not appear to be significantly on the increase as can be seen by comparing the percentages for private funds from 1968 to 1977 (eight percent) to the time period from 1978 to 1987 (9.3 percent) in Table 2.

While there have been many notable gifts from one benefactor for public library sites and buildings in the last 20 years, overall there have not been a large number of well-organized private fundraising campaigns. This type of financing has often occurred, but it has not been at the forefront.

A well-planned private fundraising drive generated $11 million for the Dallas Central Library, close to half of all reported funds raised from the private sector in 1982. In 1978, the community of Allentown, Pennsylvania raised $2.7 million for a public library building in a private fundraising campaign that was termed an "amateur effort."[6] This campaign is well documented in the proceedings of the 1980 ALA conference program entitled "Financing and Promotion of Public Library Facilities." Kathryn Stephanoff covers the major steps of a broad-based campaign, but acknowledges that most successful private fundraising campaigns secure 75 percent of the total from three or four major gifts. Many other major private fundraising efforts in the last 20 years have raised substantial amounts of funds for public library construction.

In many of these projects private sector funds have attracted local public funds. The reverse has also been true: state and federal grants have frequently stimulated private giving to public library capital projects. Private funds for public library buildings, however, have never been able to totally meet the need. The recent passage of the Tax Reform Act of 1986 (PL 99-514) has a negative effect on donations to nonprofit organizations and may diminish private sources of capital funding. This change in the tax law is of concern to those anticipating not only private funds for building projects, but also gifts of land which could previously be used as tax write-offs. Private funding is not a candidate to replace declining federal funding. Relatively few libraries have been capable of mounting private fundraising drives necessary to raise the substantial amount needed in public library facility development.

Future trends

The 1979 data show what a major influx of federal funds can do for capital outlay expenditures. Unfortunately, this kind of increase in federal funding is not likely soon. Major increases in scheduled federal appropriations affecting capital outlay for public libraries similar to those proposed by the late Senator Jacob Javits in the National Library and Information Services Act during the last LSCA reauthorization are not likely in the current climate.

The Javits bill would have established appropriations of $150 million per year for public library construction. This is the level of federal funding needed consistently to even begin to meet the national need for new public library space that was identified in 1980.[7] That survey showed a need for over 2900 public library building projects costing in excess of $2.3 billion (in 1980 dollars) over five years.

It will likely take considerable effort just to hold on to the current levels of LSCA Title II funding through the next few years and into the next decade. Federal funds have on the average contributed approximately 16 percent of the funds expended for public library construction. While this amount is significant, the importance of the LSCA Title II program and the availability of federal funds in general may lie more in the fact that they have been responsible for stimulating large amounts of state, local, and private funds for public library capital outlay purposes. The funds attracted may be funds which otherwise might never have been used to build public libraries in this country.

It is clear that capital development funds have never kept up with the space needs for public libraries regardless of the use of multiple funding sources. It is also obvious that the burden of public library capital development funding will fall more heavily on the shoulders of state and local governments.

The development and maintenance of capital outlay programs at the state level may be even more crucial than first thought if the continued overall decline in effective buying power for public library construction is to be slowed. While state capital outlay for public library construction has historically been the lowest average percentage (less than five percent) of the four sources, it appears to be on the increase.

If this trend continues, it is possible that state funding may, at least in some part, replace lost federal funds. It is unlikely that state programs could ever fully take the place of the LSCA Title II program, but it would be prudent for state library agencies to reassess their public library space needs and explore the possibility of establishing a statewide grant program for capital outlay.

Many states currently have the opportunity, while there is still some Title II funding available, to use this program (or its demise) as leverage to create new state funding initiatives. Ironically, it could possibly be that the real legacy of a slowdown in federal funding for public library construction is the establishment of strong, ongoing state programs.

If state programs fail to temper the decline in available funds for public library construction purposes, then local governments will clearly be called upon even more than in the past to fund new buildings. Local funding agencies will have to provide more than the customary 70 percent, or else capital development for public libraries will be severely impaired.

Finally, if local funding is to be even further increased, then it will become necessary for local library officials to become more sophisticated in obtaining local capital funds. Specifically, the library profession will need to develop better information sources covering the process of passing local referenda for library buildings. The sporadic data that has been gathered to date shows a very high success rate on average (two-thirds), but much study is needed to help insure even higher rates of success, and to encourage some of those who fear failure to try this approach.

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LIBRARY JOURNAL®

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Katz: the 24 Best New Magazines
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LIBRARY AUTOMATION MARKETPLACE

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Automating a library can present lots of problems. LJ*'s "Automated System Marketplace 1987" (p. 33-44) sorts out the players so librarians can tell which vendor and which system is right for them. Illustration by Trish Burgio*

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Market shares and emerging trends in the library automation industry

Automated System Marketplace 1987:

Maturity and Competition

By Robert A. Walton & Frank R. Bridge

DURING CALENDAR YEAR 1987, the library automation marketplace witnessed the installation of 302 automated systems in libraries, the largest number of installations ever during any one year. This expanded annual review of the library automation marketplace takes a closer look at each of the major library automation firms and products—what libraries were buying—and what, if any, trends emerge. These will set the course for how vendors may perform during 1988. This article focuses on the overall library automation industry, particularly market shares and emerging trends. A second study, to be published at a future date in *LJ*, provides an inside look at each of the major vendor firms—their corporate personalities, products, and customers.

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Impressive growth

While the automation marketplace has grown steadily since 1982, growth in the number of systems installed during 1987 significantly exceeded the estimates of most library automation experts. The 302 systems installed in libraries by turnkey and software-only vendors (those identified in the Source List, p. 44) reflect a 56 percent growth rate over the 193 systems installed during 1986, which had itself been a record year. While prior-year installations indicated a continued growth of the market, the sizeable gains in 1987 took many by surprise. This was particularly true for a few of the major market share vendors who had predicted a slow down and leveling off in market growth, based largely on receiving fewer Request for Proposal documents from libraries.

While there continues to be much speculation about the sharp upturn in 1987 systems installed, most experts attribute this growth to the continuing decline in the cost of computer equipment. They argue that as prices continue to drop and automated library systems become more "affordable," an increasing number of libraries find automation financially attractive and politically acceptable to funders. This argument appears to have merit considering that smaller system installations, those having between one to 16 terminals, grew from 43 percent of systems installed in 1986 to 65 percent for 1987. An alternative theory proposes that most vendors have now added the missing software modules to their integrated systems, particularly acquisitions and serials control. As these products matured, so too has the confidence level of library managers as they consider the risk of an investment in automation.

"Fast track" vendors

Perhaps resulting from the number of 1987 installations, several major library automation vendors found their historic, dominant market share positions less secure. This downward shift in overall market share was particularly noticeable for CLSI, the largest vendor in the marketplace. As shown in Chart 1, during 1987, CLSI's total market share (all systems installed during all years) dropped six percent, from 28 percent (1986) to 22 percent (1987). This represents a major loss in market position and indicates that competitors were particularly effective in winning library installations that traditionally had purchased CLSI systems. With 309 installed systems, CLSI's position of overall market share leader was shaken, but remains firm.

The second place position, however, is less stable. Geac, historically the second largest vendor in the industry, also suffered losses during 1987 and is being closely pursued by OCLC and DYNIX. While not as dramatic a drop as CLSI, Geac also suffered an overall market share decrease, down three percent from 14 percent (1986) to 11 percent (1987).

Where there are significant market share "losers," there are usually corresponding market share "winners." Undoubtedly, the big winner for 1987 was DYNIX, the fastest growing company in the industry. While DYNIX has been an increasing presence in the marketplace for several years, during 1987 DYNIX established itself as the leader of an emerging group of "fast track" vendors, companies showing aggressive and impressive gains in the number of systems installed. DYNIX increased its overall market share by three percent, from six percent (1986) to nine percent (1987). As shown in Chart 2, one of every five automated library systems installed during 1987 was a DYNIX system. Joining DYNIX as fast track vendors in growing market shares were Carlyle and INLEX, each making significant increases in installed systems during 1987.

At a time when some vendors claim the market is too competitive for newcomers, 1987 saw the introduction of several new companies to this analysis. Innovative Interfaces, Inc. (III), expanding upon its well-recognized and historical successes in automated acquisitions and serials control, expanded its system and introduced two new modules—the online public access catalog (OPAC) and circulation control. The addition of these software functions places III in the mainstream of the turnkey vendor marketplace and guarantees inclusion of its installations in the marketplace analysis. Based on III's performance during 1987, this company seems destined to be included among the fast track firms that may dominate the 1988 marketplace.

Advanced Libraries and Information, Inc. reentered the marketplace after a long sabbatical, showing a respectable four installations. Sobeco, a Canadian corporation, initiated an active marketing campaign in the United States breaking into the marketplace with an impressive four percent market share for the year. There seems to be little refuge for those established vendors who claim the marketplace is too active and whose prophecy is that extreme competitiveness may, in fact, be dangerous for the long-term stability of library automation. Clearly, many librarians do not agree.

Installations

Overall market shares (installations for all years) remained stable for both academic libraries (Chart 3) and public libraries (Chart 5). Because of the large number of historic installations, CLSI retained the lead position in overall market share for

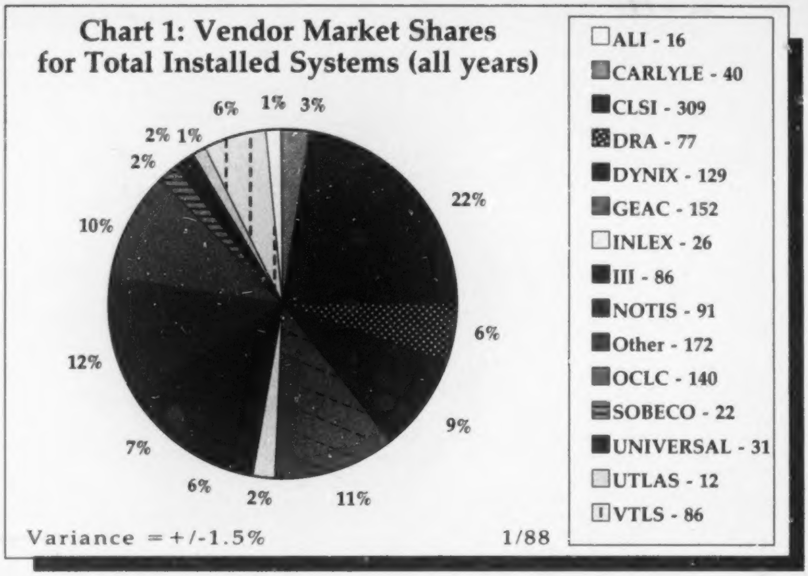


Chart 1: Vendor Market Shares for Total Installed Systems (all years)

Variance = +/-1.5% 1/88

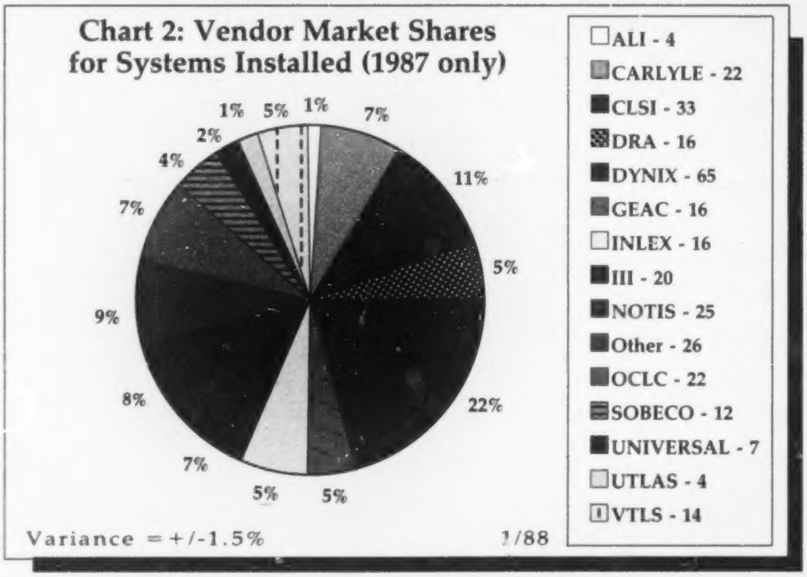


Chart 2: Vendor Market Shares for Systems Installed (1987 only)

Variance = +/-1.5% 1/88

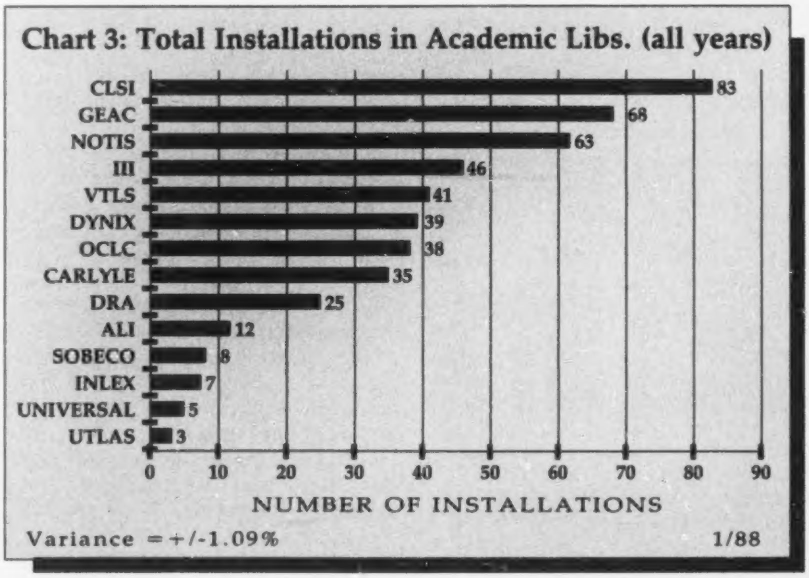


Chart 3: Total Installations in Academic Libs. (all years)

Variance = +/-1.09% 1/88

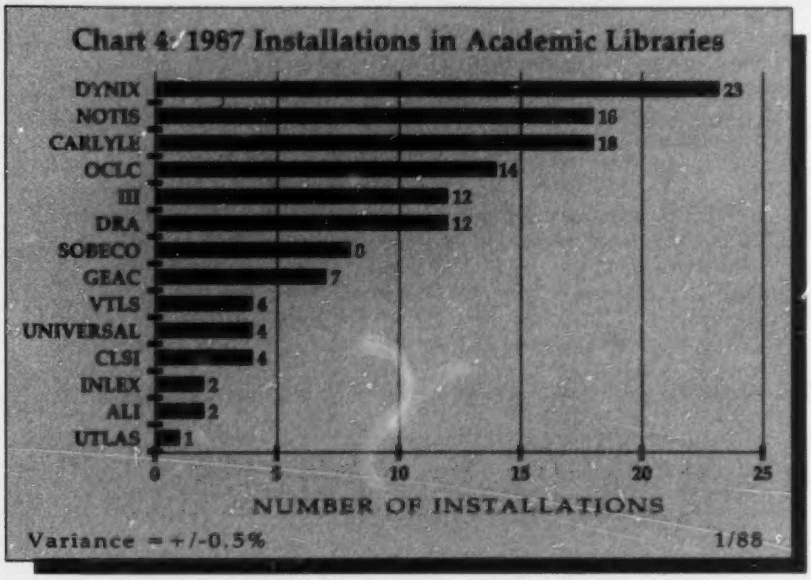


Chart 4: 1987 Installations in Academic Libraries

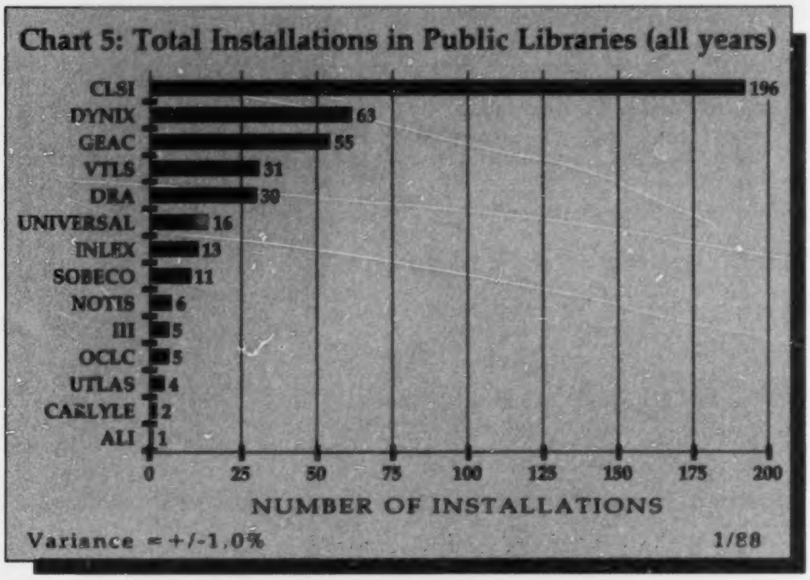


Chart 5: Total Installations in Public Libraries (all years)

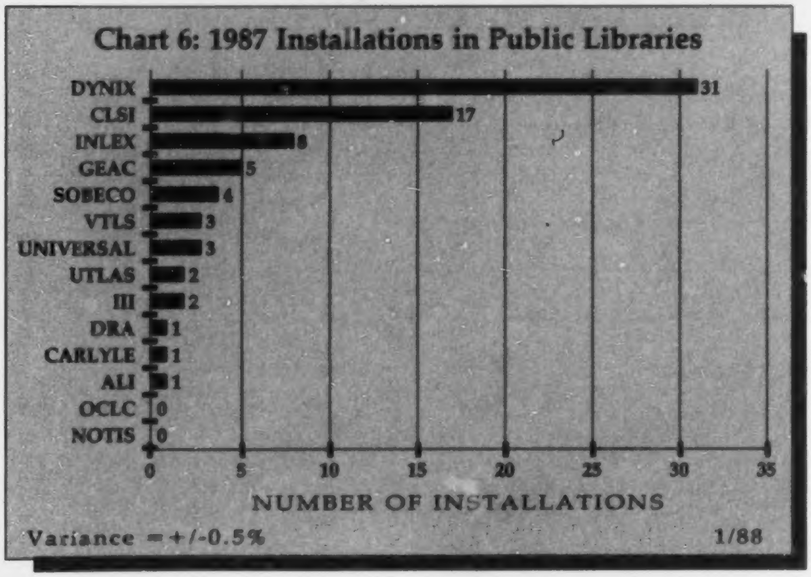


Chart 6: 1987 Installations in Public Libraries

both types of libraries. Installations during 1987, however, show yet another major shift in vendor market positioning.

During 1986, NOTIS and OCLC dominated the academic portion of the marketplace installing twice as many systems as the next two competitors, DYNIX and Carlyle. As shown in Chart 3, however, 1987 installations market positions reversed with DYNIX leading in academic library installations, followed by Carlyle and NOTIS tied for the second position, and OCLC falling to the fourth position. Although Carlyle has always been particularly strong within the academic marketplace, the industry was taken by surprise by DYNIX. DYNIX advanced to the lead position, and thereby clearly debunked the premise that it was only suitable for public libraries. Although tied for second position, NOTIS remains firmly established as the primary vendor of large, academic, and research libraries.

Shifts in market shares for 1987 public library installations followed a similar pattern. As shown in Chart 6, DYNIX established an overwhelming lead position during 1987, displacing CLSI to accept a distant second-place position. INLEX showed significant improvement, moving up to the third position from the seventh position it occupied during 1986. Surprisingly, DRA installed only one public library system during 1987.

What can account for the tremendous surge in popularity of DYNIX during 1987? One probable explanation is the substantial growth in the proportion of smaller systems installed during that year. As shown in Chart 7, the number of smaller systems exceeded those of medium and large systems combined (Charts 8 and 9). It is likely that the trend of an increasingly active smaller system marketplace will continue, giving a competitive edge to vendors such as DYNIX, CLSI, III, and INLEX, who use minicomputers that provide particularly strong cost/performance on systems supporting smaller numbers of terminals.

NOTIS retains its unshakable position of king of the large system marketplace. Even though this system has only been actively marketed for half of the years that CLSI and Geac have, NOTIS now has the largest total installed base of large systems. It sells two to three times as many large systems each year as these second- and third-place competitors combined. Strangely, as with its decline in public library installations, DRA also lost ground in the large system market segment, falling from eight installations in 1986 to three in 1987.

The foreign marketplace

While the number of domestic installations for 1987 showed sizable growth over that during 1986, some credit for an extremely "hot" '87 marketplace must be attributed to an even faster growing foreign marketplace. Of the top ten vendors, nearly all have opened one or more foreign sales offices or have signed distribution agreements with foreign brokers. As shown in Chart 10, most of the foreign sales are divided between Europe and Canada. Hidden from view, however, is the intense competition for installations in Australia and New Zealand—the geographic region that surfaced as the most active and competitive foreign marketplace during 1987.

Another strange turn is the fact that the United States became a foreign marketplace during 1987. The Canadian company Sobeco joined Utlas, Geac, and Universal Library Systems—also Canadian—in more aggressively marketing their products in the United States. Except for Geac, none of these firms have individual overall market shares that are extraordinary, but these smaller Canadian firms collectively captured 16 U.S. installations during 1987—further eroding market share for some of the major domestic vendors. It is anticipated that these Canadian companies will continue to be extremely assertive during 1988.

Special milestones

At long last, public schools began to explore library automation seriously. Historically, most school libraries have purchased and installed

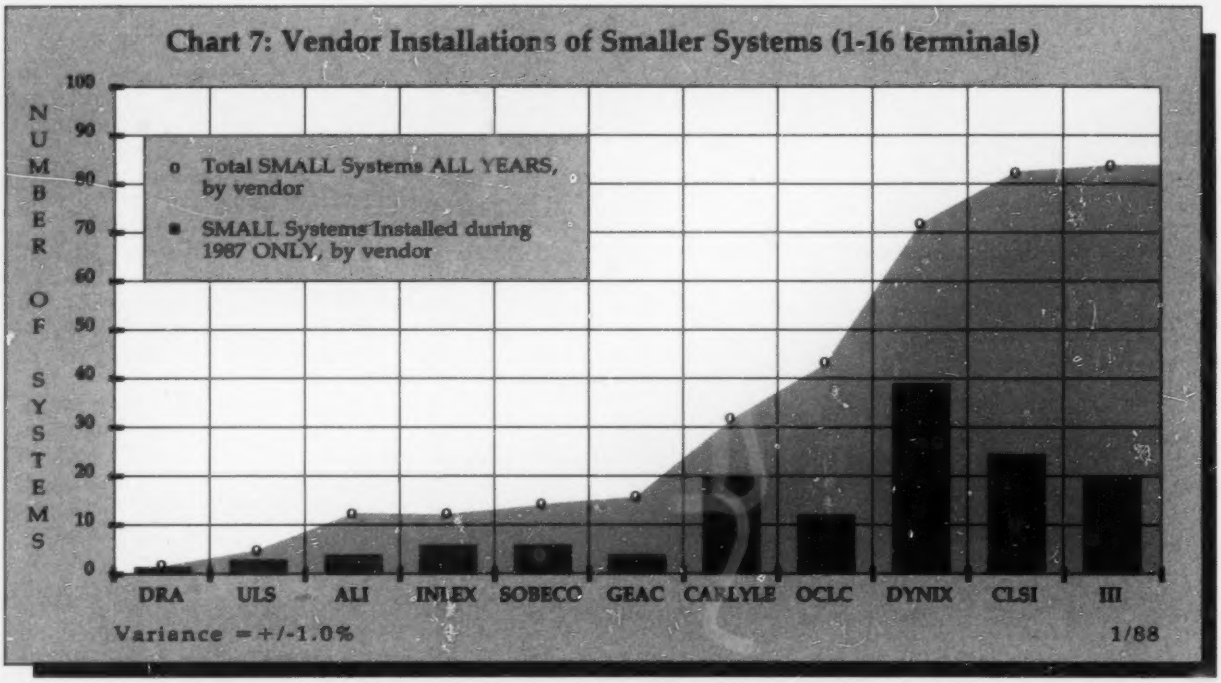


Chart 7: Vendor Installations of Smaller Systems (1-16 terminals)

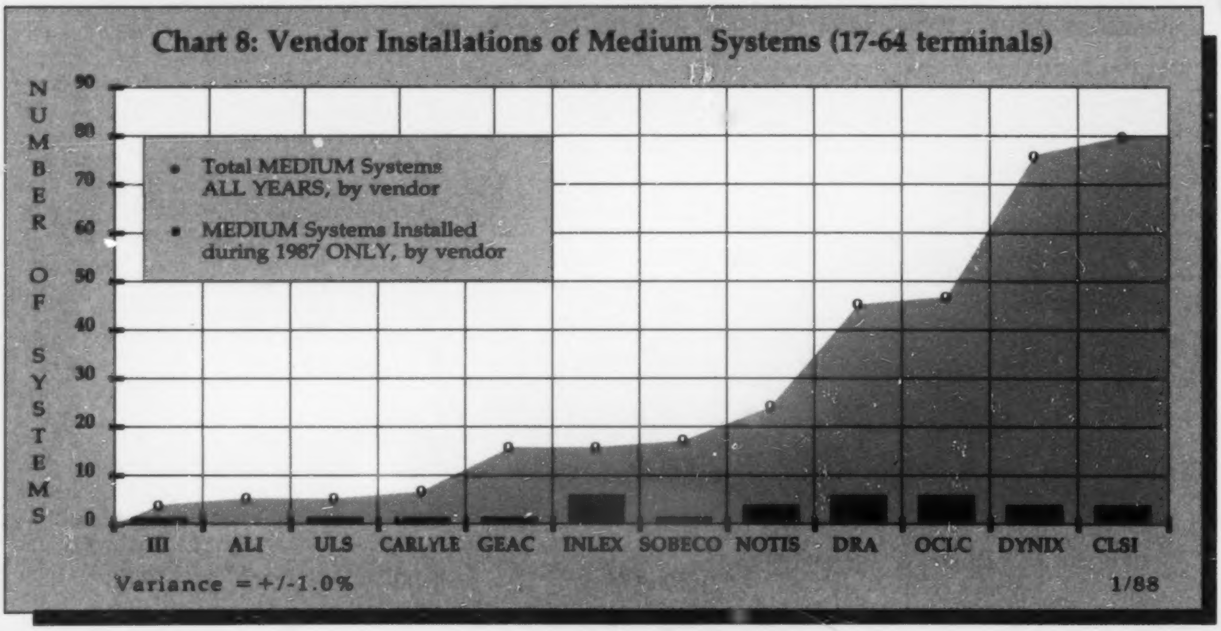
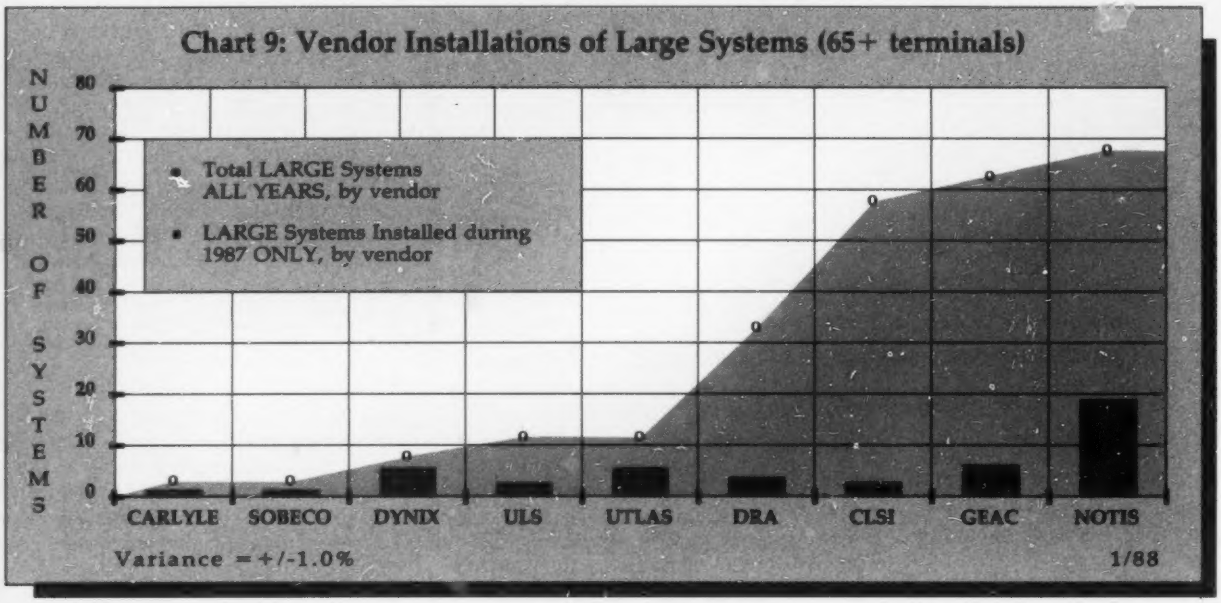


Chart 8: Vendor Installations of Medium Systems (17-64 terminals)

> *"While prior-year installations indicated a continued growth of the market, the sizeable gains in 1987 took many by surprise. This was particularly true for a few of the major market share vendors who had predicted a slow down and leveling off in market growth, based largely on receiving fewer Request for Proposal documents from libraries"*

Chart 9: Vendor Installations of Large Systems (65+ terminals)



Variance = +/-1.0%

1/88

microcomputer-based circulation systems. During 1987, however, several large school districts moved ahead with the installation of minicomputer-based, integrated library systems. As shown in Chart 11, some familiar vendor names captured this public school business. Leading the way in this new market was, again, DYNIX. Falling in close behind was INLEX, another 1987 fast track vendor. Increasingly, school district administrators are seeing the potential for curriculum enhancement by the coordinated, collective automation of school libraries, and 1988 promises to continue the investment of these institutions in large-scale library automation.

As shown in Table 1, vendors have now ported (moved) their software to operate on virtually every major brand of computer equipment. Emerging as the most popular are computers manufactured by the Digital Equipment Corporation (DEC). The DEC VAX series of computers is particularly popular among academic and government institutions and may, over time, give a slight edge to vendors offering software designed for this hardware.

Another interesting trend is the growing interest shown by some library automation vendors in nonproprietary operating systems. All library software must work in unison with, and therefore be dependent on, the operating system of a computer system. Historically, most operating systems have been proprietary—able to operate only on one type of equipment or, in some cases, only on selected models within the same brand of equipment. The data processing industry is now, slowly, moving toward nonproprietary operating systems, software that is machine independent indicating that it can operate on a wider variety of computer brands.

The most popular nonproprietary operating systems/utilities are UNIX and PICK, each of which can operate on more than 30 different brands of computer hardware. As shown in Table 2, several vendors are now offering software that uses one of these two operating systems, giving them more flexibility to support different types of computers and, in doing so, becoming more competitive. Particularly noteworthy is the decision by CLSI to move away from the proprietary CLSI operating system to UNIX, broadening CLSI's competitive ability.

After years of anticipation and user demands, system vendors are now offering a wider selection of system interfaces—the ability for a turnkey, automated library system to directly and electronically communicate with other vital computer systems, such as cataloging utilities and acquisitions jobbers. Table 3 illustrates the wide range of choices now available in connecting the local automated library system to cataloging vendors.

While most vendors have previously offered interactive, online connections to the major bibliographic utilities, such as OCLC, RLIN, and WLN, the ability to transfer records electronically has now expanded to encompass many of the private cataloging services and jobbers. Unfortunately, as seen in Table 4, the ability to electronically capture serials and acquisitions records falls far short of industry needs. Only one company, III, provides electronic links to most acquisitions and serials jobbers, based largely on its history of strength in these two subsystems. While most vendors are actively

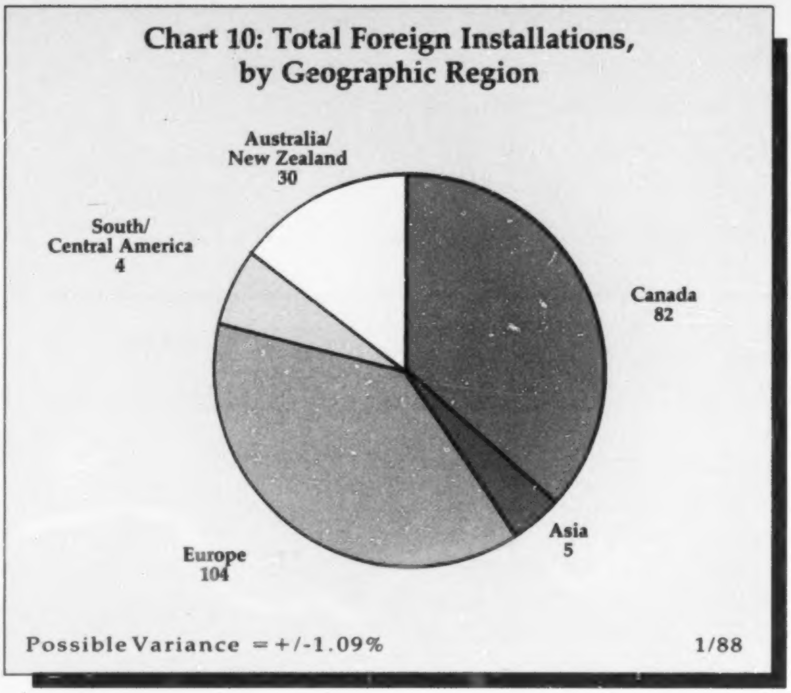


Chart 10: Total Foreign Installations, by Geographic Region

working on these interfaces, it will probably be several more years before they are commonplace.

After much bantering by library automation consumers and consultants, the vendor community is slowly migrating its software toward what can be loosely called "industry standards." Without exception, success in the current marketplace requires the ability to fully support one or more of the flavors of the MARC standard. As shown in Table 5, most vendors now recognize and accept most of the different versions of MARC, an absolute priority if the vendor anticipates any competitiveness in the academic marketplace.

Going more slowly is the vendor migration toward developing software that meets the specifications of the protocol layers for the open systems interconnection model. The Open Systems Interconnection (OSI) Reference Model (ISO 7498) of the International Organization for Standardization specifies the functional responsibilities for each of two or more computers that desire to communicate. The model, which divides these communication protocols into a seven-layered process, is as confusing as it sounds and not generally understood by the library profession. These standards are important, nonetheless, and as increasing numbers of libraries have placed emphasis (in their RFPs) on vendor adherence to this model, vendors are slowly enhancing their software systems to meet these special protocols.

What is too big/too little

Perhaps the final, important realization in looking back to 1987 is that the classifying of vendors by system size is beginning to fade. Many of the vendors are now supporting different levels (in some cases different types) of computer hardware, primarily to give them a great cost performance advantage in competing for business among different sizes of libraries. As shown in Table 6, except for Eyring and Utlas, all of the vendors have experience in small systems. With the exception of III, all of the vendors have experience with very large systems. So, in the final analysis, the barriers of "big system vendor" and "little system vendor" are breaking down—it is a more open and generally competitive marketplace.

Vendor profiles

Market shares aside, what were the milestones of the major vendors during 1987? How did they fair against the goals they set for themselves at the end of 1986?

Advanced Libraries & Information

Advanced Libraries & Information, Inc. was established and made its initial entry into the marketplace during 1987. During 1988, the company must move from a research and development mentality to an active marketplace participant, emphasizing marketing and sales. No specific installation goals have been published for 1988, but in the judgment of the authors, the company must show a measurable increase in overall market share if it is to remain viable and be taken seriously by library customers, much like Carlyle and INLEX did during 1987.

Carlyle

Nineteen eighty-seven was a very good year for Carlyle. Surprisingly, the company met each of the aggressive goals published in the last marketplace analysis. Annual revenues tripled, the number of systems installed doubled, and the company posted a profit during each quarter in 1987. In an effort to maintain continuity of service, Carlyle staffing has more than doubled—a necessity if the company is to be successful in supporting its fast-growing client base. For 1988, Carlyle managers have prudently established more modest goals. Carlyle software will be expanded to include (completed) acquisitions and serials control modules, and the introduction of CD-ROM technology, an option of necessary interest to most of the major vendors.

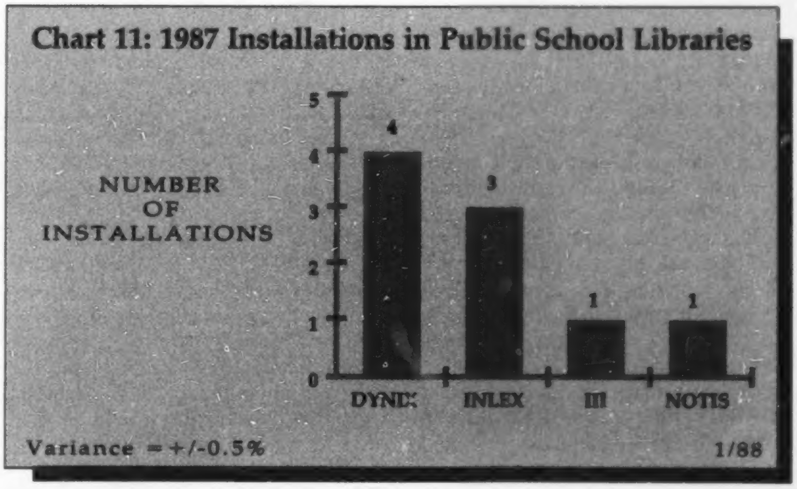


Chart 11: 1987 Installations in Public School Libraries

"After much bantering by library automation consumers and consultants, the vendor community is slowly migrating its software toward what can be loosely called 'industry standards.' Without exception, success in the current marketplace requires the ability to fully support one or more of the flavors of the MARC standard"

"Market Share . . . how is it counted and why is it important?"

TRADITIONAL BUSINESS practice uses market share analysis to quantify growing, stable, and declining vendor firms in a defined industry. It is also valuable in identifying changing trends and priorities in customer behavior. The goal of the *LJ* annual library automation marketplace analysis is analogous: to collect, describe, and analyze the activities of the library automation turnkey and software-only vendors and their customers for the year 1987.

Thus, vendors may gain a better understanding of how they performed in comparison with other vendors, and, perhaps more importantly, how well the competition performed. Librarians use the market share information to identify which vendors and products were popular with comparable institutions, to identify the up-and-coming vendor firms, and as a foreshadowing of vendors in trouble. By examining the marketplace it is possible to gain a view of the entire industry and put the failure or successes of any vendor or library in perspective.

But how is marketplace counted? Where do the figures come from? Herein lies the problem. There are widely differing opinions about the best method of counting and assigning portions of the marketplace "pie." Historically, *LJ*'s marketplace articles have defined the size of each vendor's market shares based upon the number of computer systems installed by that company. Once all of the systems installed by all vendors have been calculated, proportional market shares are assigned.

This traditional methodology has its critics, including the authors. By assigning market shares based on the number of installed systems, the implication is that all installations are of a similar size and represent equivalent economic units for the library automation industry. This is obviously untrue. If, for example, Vendor A installs four smaller automated library systems (12-16 terminals each) and Vendor B installs one very large automated library system (125-150 terminals), Vendor A will receive a much larger market share value than Vendor B. This is unfair since the one system installed by Vendor B is certainly equivalent in value and industry economic significance to all systems installed by Vendor A.

So . . . how do other industries handle this problem in assigning market shares? Wherever possible, market shares should be assigned on the basis of gross corporate revenues. Instead of looking at an artificial comparison of products which may have different values, some industries simply compare the gross amount of money flowing into each vendor. Mike Mellinger, president of Data Research Associates, Inc., has long advocated the use of revenues for calculation of library automation market shares. The authors also subscribe to this approach but, unfortunately, over 90 percent of the vendor firms in this industry are privately held and will not release these financial figures for publication. Secondly, it is not possible to confirm independently most revenue data provided by vendors, while it is possible to verify vendor installations by talking directly to customers. For these reasons, the number of systems installed remains the best indicator available for assigning library automation market share.

Company	'87 Revenues
Data Research	$8,806,000
Geac	42,000,000
III	5,000,000
NOTIS, Inc.	1,408,132
OCLC—Local Systems	10,349,681
Universal Lib. Systems	2,281,695
Utlas	16,000,000
VTLS	3,000,000
Total reported revenues of vendors not releasing individual figures for publication	116,900,000
Total Estimated Industry Revenues	$205,745,508

If installation comparisions are not the ideal marketplace measure, how can unfair marketplace comparisons be minimized? Again, as with other industries, the best way to avoid unfair comparisons of vendor activity is to provide detailed marketplace comparison instead of relying only on aggregate installation comparisons. By presenting additional vendor market share analysis by type of library, size of system installed (based upon number of terminals), and by geographic location, readers will have the information necessary to independently identify different vendor strengths and weaknesses in selected segments of the marketplace.

Table 1
Hardware Availability

Manufacturer	Model	Vendor
Altos	2000	CLSI
Amdahl	all	NOTIS
C.Itoh	50	Advanced Library Systems
	150	Advanced Library Systems
	250	Advanced Library Systems
	350	Advanced Library Systems
	550	Advanced Library Systems
Control Data	Omega series only	NOTIS
Convergent Technologies	5320	Innovative Interfaces
	5640	Innovative Interfaces
Data General	C350	OCLC-LS/2000
	MV/XXXX Series	OCLC-LS/2000
	S/XXX Series	OCLC-LS/2000
Digital Equipment Corporation (DEC)	PDP 11/XX Series	CLSI
	PDP 11/XX Series	OCLC-LS/2000
	PDP 11/XX Series	Universal Library Systems
	VAX Series	Advanced Library Systems
	VAX Series	DRA
	VAX Series	DYNIX
	VAX Series	Sobeco/Multilis
	VAX Series	Universal Library Systems
Formation	400 only	NOTIS
Fujitsu		Advanced Library Systems
Geac	6000	Geac
	8000	Geac
	9000	Geac
Hewlett Packard	3000	Inlex
	3000	VTLS
Honeywell	DPS/6	DYNIX
	DPS/6	Advanced Library Systems
IBM	370	DYNIX
	9370	DYNIX
	30XX Series	NOTIS
	370 Series	NOTIS
	43XX Series	NOTIS
	937X Series	NOTIS
Innovative Interfaces	INNOVACQ	Innovative Interfaces
Intel	DPX	Carlyle
McDonnel Douglas	any w/PICK OS	Advanced Library Systems
	any w/PICK OS	DYNIX
Magnuson	all	NOTIS
Motorola Four-Phase	311 & 312 only	NOTIS
Natl. Advanced Systems	all	NOTIS
NCR	Tower 21	Multilis
Nixdorf	all	NOTIS
Prime	any w/PICK OS	Advanced Library Systems
	any w/PICK OS	DYNIX
Sequent	B 21	CLSI
	B 8	CLSI
	S 27	CLSI
	S 81	CLSI
Sequoia	any w/PICK OS	Advanced Library Systems
Tandem	CLX	Eyring
	Nonstop Series	Utlas
	Nonstop Series	Eyring
	TXP	Eyring
	VLX	Eyring
Ultimate	1400	DYNIX
	3000	DYNIX
	6000	DYNIX
	7000	DYNIX
Unisys	6	Pueblo
	8	Pueblo
	10	Pueblo
	90/XX Series	Pueblo
Wyse	2108	CLSI

Nineteen eighty-eight will be an important year for Carlyle as libraries watch to see if the company can maintain its fast track growth while keeping its new customers happy.

CLSI

CLSI is a company in transition . . . an innovative (while difficult) position for any marketplace leader. The company has rebuilt its management team and philosophy, and charted a new multiyear course for its products. With over 300 systems installed, CLSI has announced an aggressive plan to migrate all of its proprietary software products to the UNIX operating system and, during this process, improve its adherence to industry standards.

This is an important move for CLSI and absolutely necessary if the company is to stop the erosion of its market share and thus hold its leading position in the industry. For any company, this type of major software redevelopment is quite difficult, but it will be particularly so for CLSI. The company is confronted with the reality that this new software development effort must also include a reasonably priced transition alternative for its many older customer institutions—many of which now operate on older computer hardware and software technologies, some with aging and nonstandard databases. While an aggressive strategy by any measure, CLSI has pulled together the human and financial resources necessary to make a strong showing. Its performance in 1988 will, in large part, measure the library community's acceptance of this new plan from the industry's oldest and most successful vendor.

Data Research Associates

During 1987, DRA passed benchmark tests at the two largest public libraries to automate to date, Los Angeles County Public Library and the Queens Borough Public Library, N.Y. The company continues to be successful with large library installations based upon the strong performance of its processor cluster architecture, based upon the DEC VAX computers. Like several other vendors, DRA completed and installed several final modules to its ATLAS software system, including acquisitions, serials control, and authority control. Academic libraries favored DRA over public libraries during 1987, accounting for more than 75 percent of new installations. No major

> *"There seems to be little refuge for those established vendors who claim the marketplace is too active and whose prophecy is that extreme competitiveness may, in fact, be dangerous for the long-term stability of library automation. Clearly, many librarians do not agree"*

software releases are planned for 1988. DRA considers all of the basic software modules of the ATLAS system complete, and development staff will be focusing on cosmetic and user friendly enhancements and will endeavor to incorporate the emerging Common Command Language and interlibrary loan standards.

DYNIX

As the flagship vendor of the 1987 marketplace, DYNIX devoted most of its effort to successfully managing the installation of a very large number of new customer systems, at a rate of more than one each week. DYNIX also broke new ground on several different fronts. The company successfully migrated its software and completed customer installations on two new computer systems, the DEC VAX and the IBM 9370 series. These two types of hardware are the most popular in the data processing industry and will, undoubtedly, add to DYNIX's marketing momentum for 1988.

The company also broke its misleading stereotype as a "small library vendor," successfully passing a 200+ terminal benchmark test for the New Orleans Public Library. In 1988, energies will be focused primarily on maintaining customer satisfaction, and the completion and field installation of the serials control software module.

Geac

During 1987, the Geac Corporation once again became financially seaworthy and reentered active marketplace participation. Based on strong support from its customer base and its affiliation with a new investment partner, Helix Investments Ltd. (Toronto), interim receivership was lifted from Geac's shoulders during October 1987. Geac is now in the process of regaining the offense, having significantly expanded its U.S. sales force and initiated a new marketing and sales campaign. Proper recovery from the type of financial problems experienced by Geac will take time, and its success during 1988 will be better indicated by increased profitability than by increased market share.

INLEX

As another of the 1987 fast track vendors, INLEX devoted much of its effort to installing new customer systems. Advances were also made in completing several circulation and bibliographic maintenance functions that had been outstanding from the INLEX software. Other notable improvements included the release of the PC-backup workstation and the expansion of INLEX's written documentation. In addition to concentrating on continued growth, INLEX plans to release the acquisitions and serials control modules for field installation during 1988.

Table 2
Operating Systems

System	Release	Vendor
Astro	3.3	Geac
CICS/VS		NOTIS
CLSI Proprietary	27.45	CLSI
Geos	1.6	Geac
GUARDIAN	B 40 B Series	Eyring Utlas
Hewlett-Packard MPE	all	VTLS
Hewlett-Packard MPE/V	U	Inlex
Intel RMX86	7	Carlyle
MIIS	5.3	LS/2000
MS/DOS	3	CLSI
MVS-IBM/370		NOTIS
MVS-IBM/XA		NOTIS
OS-IBM/VS1		NOTIS
P/OS	2	CLSI
PICK	7.6 7.6	Advanced Lib. Information DYNIX
PRIMOS (oper. PICK)		DYNIX
RSTS	7.2	Universal Library Systems
UCSD p-System	2+	Innovative Interfaces
ULTRIX		Innovative Interfaces
UNISYS OS/3		Pueblo
UNIX	27.DBMS Version 3. 5.2	CLSI Innovative Interfaces Sobeco/Multilis
UNIX (oper. PICK)		DYNIX
VM-IBM (oper. PICK)		DYNIX
VMS (DEC oper. PICK)		DYNIX
VMS (DEC)	latest 4.6 all	DRA Sobeco/Multilis Universal Library Systems
VSE-IBM/DLIB		NOTIS
VSE-IBM/SP		NOTIS

Innovative Interfaces, Inc. (III)

With the release of its circulation control module during February 1987, III became an established vendor of a fully integrated library system. Once known primarily as a vendor of acquisitions and serials control systems, III made significant competitive advances in winning major accounts during 1987, including the University of California (San Diego) and the University of Oregon. III will undoubtedly broaden its appeal even further now that the company has completed a DEC OEM agreement and a migration of its software to run on the DEC VAX series of computers. Long ignored by library automation consultants, III has proven its ability to adjust to wider marketplace trends and is the vendor to watch in 1988.

NOTIS

NOTIS, the favored system of most large academic and research libraries, focused much of its 1987 energy on important and long-overdue organizational issues. Under the leadership of Jane Burke, NOTIS was incorporated as a wholly owned subsidiary of Northwestern University. The company furthered its independence by moving to new offices, purchasing a new research and development mainframe computer, and expanding its staffing by 46 percent. While continuing a pattern of strong sales during each of the past three years, NOTIS plans to concentrate on improving customer support and relations during 1988. NOTIS has clearly established itself as the dominant vendor for large online library systems.

OCLC—Local Systems

In reaction to the downfall of DataPhase, OCLC completed signing on a total of 46 DataPhase customers, providing each with system maintenance and support under the LS/2 designation. Although these customers retained their DataPhase systems software, these installations became OCLC customers, increasing their installed base from 94 to 140 libraries. In addition, OCLC introduced a wide range of new products during 1987, including a new authority control system to download LC MARC authority records, LS/2000 Biblio-Link (a companion program to Pro-Cite), and CD/2000, a new CD-ROM online catalog. Continuing its relationship with Data General, the computer manufacturer, OCLC became one of DG's top 15 accounts in the United States.

Sobeco (Multilis)

Sobeco, a Canadian-based company, entered the U.S. marketplace during 1987 with the installation of a system at the New Castle Public Library (Pa.). As a vendor of software based on DEC VAX computers and supported by the UNIX operating system, Sobeco has the necessary tools to be extremely competitive with the established vendors.

Universal Library Systems

Although Universal has participated in the marketplace for many years, recently the company has maintained a low profile and is not widely recognized by the general library community. Nineteen eighty-seven saw a change in this posture as Universal became increasingly active in competing for installations in the United States. The company provides libraries with another DEC VAX–based product and is one of the few vendors making strong advances in electronic interfaces with serials and acquisitions vendors. Given its recent mediocre sales performance, Universal has experienced an internal management reorganization and greatly expanded its marketing and sales force. The company has also converted to a publicly held firm (Canadian Exchange) and obtained sufficient financing to compete aggressively for an expanded overall market share during 1988.

Utlas

Utlas remains one of the smaller system suppliers, focused primarily on the installation of very large integrated library systems. During

Table 3
System Interfaces

Vendor	OCLC	RLIN	WLN	Utlas	Biblio-File	Auto-graphics	Marcive	Baker& Taylor	Brodart	Other Interface
Advanced Lib. & Info	x	x	x	x	x			x		
Carlyle	x	x	x	x	x	x			x	
CLSI	x	x	x	x	x	x(tape)	x(tape)	x(tape)	x(tape)	LSSI PICA (tape)
Data Research Assocs.	x	x	x	x	x	x	x	x	x	
DYNIX	x	x	x	x(tape)	x	x(tape)		x(tape)	x(tape)	
Eyring	x				x					
Geac	x	x	x	x	x	x		x	x	
INLEX	x		x		x					Laser Quest
Innovative Interfaces	x	x		x				x		BNA
NOTIS	x	x		x						
OCLC (LS/2000)	x									
Pueblo										Irving Network
Sobeco/Multilis	x			x	x			x	x	
Universal Lib. Systems	x	x	x	x	x	x		x	x	Natl. Lib. of Canada
Utlas	x	x		x						
VTLS	x	x	x	x(tape)	x	x	x(tape)	x(tape)	x(tape)	LSSI videodisc

Tape = data transfer via magnetic tape load only; not an interactive, online interface

Table 4
Serials/Acquisitions Interfaces

Vendor	OCLC	RLIN	WLN	Utlas	Faxon	EBSCO	Read	Brodart	Other
Advanced Libs. & Info.									
Carlyle					x				
CLSI									Menzies (UK)
Data Research Assocs.									
DYNIX									Baker & Taylor
Eyring									
Geac					x	x			
INLEX									
Innovative Interfaces	x	x		x	x	x		x	BNS, Coutts, Yankee Academic, Majors, Midwest, Heins
NOTIS	x				x				
OCLC (LS/2000)	x								
Pueblo									
Sobeco/Multilis									
Universal Lib. Systems					x				Bibbase Acq.
Utlas				x					
VTLS					x				Baker & Taylor

Table 5
Interfacing with MARC

Vendor	OSI Reference Model	LC MARC	OCLC MARC	RLIN MARC	US MARC	CAN MARC	AUS MARC	UK MARC	INTER MARC	UNI-MARC	UTLAS	Other Communication Standard
Advance Lib. & Info.		x	x	x	x	x	x	x	x	x	x	
Carlyle	levels 1-4 levels 5-7 will implement											Standard patron record, when available
CLSI	levels 1-3	x	x	x	x	x	x	x	x	x	x	
DRA	levels 1-5; levels 1-6 under development	x	x	x	x	x	x	x	x	x	x	NISO serials holdings, Boolean search, & Acq. Notices
DYNIX					x	x	x	x				BISAC SISAC-proposed; Summary serials holdings-proposed
Eyring			x									
Geac	levels 1-7 for records transfer	x	x			x	x	x	x	x		BISAC/SISAC X.25
INLEX	will implement when announced	x	x	x	x	x	x	x	x	x	x	
Innovative Interfaces	will commit as stds. announced											ASCII, RS232
NOTIS	under development	x	x	x	x	x	x	x	x	x		
OCLC LS/2000	levels 1-3 levels 4-7 under development	x	x	x	x	x	x	x	x	x		NISO serials holdings at summary level
Pueblo												
Sobeco/Multilis	planned				x	x					x	ISBD
ULISYS	under development					x	x					USMARC for holdings
Utlas	levels 1-5 under development	x	x									BISAC for data transmission
VTLS	under development				x		x	x				FIN MARC, LIBRIS MARC under development

Table 6
Size of Installations

Vendor	Smallest Library Installed		Largest Library Installed	
	Terminals	Titles	Terminals	Titles
Advanced Lib. & Info	1	15,000	200+	1,000,000
Carlyle	4	32,000	131	1,400,000
CLSI	3	21,427	275	982,960
Data Research Assocs.	10	273,000	430	4,193,000
DYNIX	4	10,000	200	650,000
Eyring	96	1,200,000	500+	2,700,000
Geac	3	30,000	240	1,600,000
INLEX	2	5,000	70	316,000
Innovative Interfaces	4	30,000	28	250,000
NOTIS	12	26,000	1000+	4,200,000
OCLC LS/2000	2	1,200	154	710,000
Pueblo	9	72,000	72	200,000
Sobeco/Multilis	4	10,000	200	2,500,000
Universal Lib. Systems	8	52,379	238	587,576
Utlas	20	80,000	225	2,500,000
VTLS	11	23,000	150	800,000

1987, Utlas signed on the last of the DataPhase ALIS-III sites and concentrated its resources on completing the full-acceptance test at the University of Toronto. Given its low number of sales during 1986 and 1987, it is probable that Utlas will fall below the one percent overall market share during 1988.

VTLS, Inc.

Like NOTIS, VTLS recently experienced the process of moving into the private sector as an independent company. Last year was a period of metamorphosis for VTLS as it experienced a 75 percent growth in staff, saw a 100 percent increase in gross revenues, and prepared to move to a new corporate headquarters. VTLS has established the most aggressive industry goal for 1988—a minimum growth of 100 percent as compared to 1987.

The marketplace remains healthy and continues to show unlimited growth potential. A later article will take a closer look at these mainstream companies, their products, services, and customers.

Source List

Advanced Libs. &
Information, Inc.
2570 S. Beretania St.
Honolulu, HI 96826
808-947-4441

CALS Services Group, Ltd.
133 McKinstry Dr.
Elgin, IL 60120

Carlyle Systems Inc.
5750 Hollis St.
Emeryville, CA 94608
800-274-4274

Centel Information, Inc.
(formerly Sigma
Data Servs.)
12730 Twinbrook Pkwy.
Rockville, MD 30852
301-984-3636
800-843-4850

Centennial College
The Bibliocentre
80 Cowdray Ct.
Scarborough, Ontario
Canada M1S 4N1

CLSI, Inc.
320 Nevada St.
Newtonville, MA 02160
800-225-3076

Comstow Info. Servs.
302 Boxboro Rd.
Stow, MA 01775-1161
617-897-7163

Data Research Assocs., Inc.
1276 N. Warson Rd.
St. Louis, MO 63132-1806
800-325-0880 (US)
800-331-3515 (Canada)

Data Trek, Inc.
167 Saxony Rd.
Encinitas, CA 92024
619-436-5055

Dougherty County PL
300 Pine Ave.
Albany, GA 31701-2533
912-431-2900

DYNIX, Inc.
151 E. 1700 S.
Provo, UT 84601
801-375-2770

Easy Data Systems, Inc.
401-1200 Lonsdale Ave.
N. Vancouver, B.C.
Canada V7M 3H6
604-986-8261

Eyring Research Inst., Inc.
5280 S. 300 W., Suite E. 260
Salt Lake City, UT 84017
801-263-9200

F.W. Faxon Company
15 Southwest Park
Westwood, MA 02090
617-329-3350

Follett Software Company
4506 Northwest Hwy.
Crystal Lake, IL 60014
800-323-3397

Gaylord Brothers
Library Automation
PO Box 4901
Syracuse, NY 13221
315-457-5070

Geac Computers, Inc.
350 Steelcase Rd. W.
Markham, Ontario
Canada L3R 1B3
416-475-0525

Georgetown University
Dahlgren Memorial Library
3900 Reservoir Rd. NW
Washington, DC 20007
202-625-7673

H.C.E. Library Automation
Systems
PO Box 18265
Fort Worth, TX 76180
817-498-6350

IBM (DOBIS)
Library Marketing
472 Wheelers Farms Rd.
Milford, CT 06460
203-783-7000

Information Access Corp.
11 Davis Drive
Belmont, CA 94002
415-591-2333

Information Dimensions
655 Metro Place S., Suite 500
Dublin, OH 43017-1396
614-761-8083
800-DATA-MGT

INLEX, Inc.
1900 Garden Rd.
Monterey, CA 93942
800-553-1202

Innovative Interfaces
2344 Sixth St.
Berkeley, CA 94710
800-444-2344

Library Automation Prods.
875 Ave. of the Americas
New York, NY 10001
212-967-7440

Library Corp. of America
(The Intelligent Catalog)
PO Box 40035
Washington, DC 20016
800-624-0559

Library Systems &
Services, Inc.
20251 Century Blvd.
Germantown, MD 20874
800-638-8725

Midland Public Library
Dow Memorial Library
1710 W. St. Andrews Dr.
Midland, MI 48640
517-835-7151

Municipal Software
Consultants, Inc.
212 E. Franklin St.
Grapevine, TX 76051
817-488-6571

New Age Office Systems
d/b/a New Age/Orbit
798 21st Ave.
Albany, GA 31701
912-888-3986

NOTIS Systems, Inc.
1007 Church St., 2d fl.
Evanston, IL 60201-3622
312-866-0150

OCLC, Inc. (LC/2000)
Local Systems Division
6565 Frantz Rd.
Dublin, OH 43017
800-848-5878

Pennsylvania State
University
LIAS Program Office
E. 511 Pattee Library
University Park, PA 16802
814-865-1858

Philsom Network
Washington University
School of Medicine Library
660 S. Euclid Ave.
St. Louis, MO 63110
314-362-2788

Pike's Peak Library District
(Maggie's Place)
20 N. Cascade Ave.
PO Box 1579
Colorado Springs, CO 80901
303-473-2080, x241

Pueblo Library District
100 E. Abriendo Ave.
Pueblo, CO 81004
303-544-1940

Ringgold Management
Systems
PO Box 368
Beaverton, OR 97075-0368
503-645-3502

Sedna Corporation
PO Box 22436
Minneapolis, MN 55422
612-535-2326

Sigma Data Services Corp.
(See Centel Information)

SIRSI Corporation
2904 Westcorp Blvd.
Huntsville, AL 35805
205-536-5881

Sobeco Group (Multilis)
505 boul. Rene Levesque W.
Montreal, Quebec
Canada H2Z 1Y7
514-878-9090

Sydney Development Corp.
1385 W. Eighth Ave.
Vancouver, B.C.
Canada V6H 3V9
604-734-8822

Systems Control, Inc.
PO Box 10025
Palo Alto, CA 94303
415-494-1165

Systemshouse Limited
2827 Riverside Drive
Ottawa, Ontario
Canada K1V 0C4
613-526-0670

Tarrant Cty. Jr. Coll. Dist.
1400 Electric Service Bldg.
Fort Worth, TX 76102

Unisys
Public Sector Marketing
PO Box 500
Blue Bell, PA 19424
215-542-4011

Universal Library Systems
(ULISYS)
1609-F Broadway
Bellingham, WA 98225
206-733-1732

Univ. of Wisconsin Lib.
728 State St.
Madison, WI 53706
608-262-2600

Utlas
80 Bloor St. W., 2d fl.
Toronto, Ontario
Canada M5S 2V1
416-923-0890

VTLS, Inc.
1800 Kraft Dr.
Blacksburg, VA 24060
703-953-3605

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Periodical and Serial Prices
Collection Building by Conspectus
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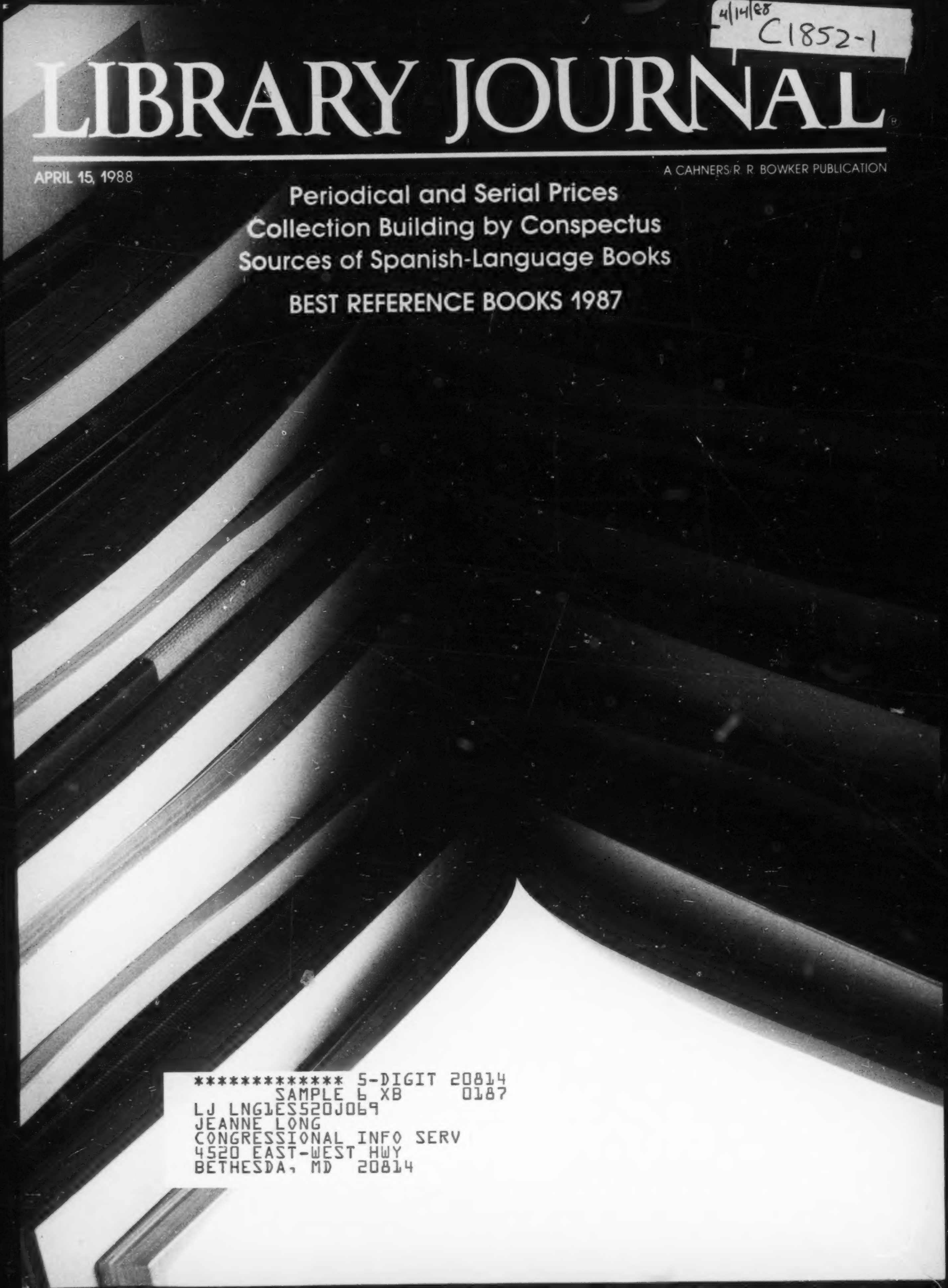
BEST REFERENCE BOOKS 1987



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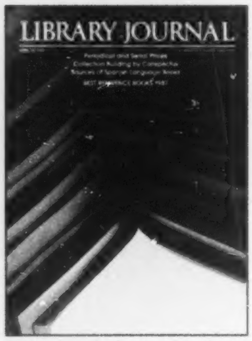

Bringing information into focus is the challenge of reference work and reference works. "Reference Books of 1987" (p. 29-34) will help librarians meet the challenge. Photograph by Peter Neumann

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The 28th annual survey of U.S. periodical prices

Price Index for 1988: U.S. Periodicals

By Leslie C. Knapp & Rebecca T. Lenzini

THIS SURVEY of U.S. periodical prices is sponsored by the Library Materials Price Index Committee of the Resources Section of the American Library Association, Resources and Technical Services Division and marks the fourth year since The Faxon Company has assumed responsibility for its production.

Faxon specializes in providing automated subscription services to libraries and other clients worldwide. Because of the company's long history of interest in trends in serials prices, company representatives have often served as consultants to the Library Materials Price Index Committee.

Suspended by the committee in 1985 for reevaluation of scope and usefulness, the U.S. Serial Services Index reappears here on page 41 under the authorship of Mary Elizabeth Clack, serial records librarian at Harvard College. The Library Materials Price Index Committee, in conjunction with Faxon, has developed criteria for this index that more closely meet those established in ANSI Z39.20-1983.[1] Faxon also provides price data for this periodicals report.

Purpose, scope, & methodology

The purpose of this index and accompanying tables and analysis remains unchanged from previous years: to provide information useful to librarians and others who must prepare annual budget requests for serials, and to document periodical price indexes each year for those interested in monitoring price trends for library materials.

The scope insures that each periodical included in the index must be published in the United States, must be priced, and must meet the criteria established in ANSI Z39.20-1983. This standard defines a periodical as a "publication that constitutes one issue in a continuous series under the same title, published more than once a year over an indefinite period, with individual issues in the series numbered consecutively or with each issue dated. Newspapers are excluded."

Serial services, microform editions, and electronic journals are also excluded. Periodicals that change title are considered to be the same publication if volume numbering remains continuous. The index continues to be based on the same titles and subject categories as in previous years.

Subscription prices for 1988 are taken from Faxon's online rate file as of January 31, 1988: publishers' list prices for the 1988 subscription year as supplied directly to Faxon by the

Table I: Subject Categories in Rank Order by Average Subscription Price for 1988

Rank 1986	Rank 1987	Rank 1988	Category	Average Subscription Price, 1988
1	1	1	Soviet Translations	$592.22
2	2	2	Chemistry & Physics	329.99
3	3	3	Medicine	180.67
4	4	4	Mathematics, etc.	159.33
5	5	5	Zoology	127.33
6	6	6	Engineering	114.83
7	7	7	Psychology	100.57
8	8	8	Sociology & Anthropology	64.27
11	11	9	Home Economics	54.73
10	10	10	Business & Economics	53.89
9	9	11	Journalism & Communications	53.39
12	12	12	Library & Information Sciences	51.61
13	13	13	Education	47.95
14	14	14	Industrial Arts	44.20
17	17	15	Labor & Industrial Relations	44.06
16	16	16	Law	43.33
15	15	17	Political Science	41.55
18	18	18	Agriculture	33.56
19	19	19	Fine & Applied Arts	32.43
21	21	20	History	30.16
22	22	21	Physical Education & Recreation	28.60
20	20	22	General Interest Periodicals	28.29
23	23	23	Literature & Language	28.04
24	24	24	Philosophy & Religion	27.09
25	25	25	Children's Periodicals	16.39
			U.S. Periodicals Index Excluding Soviet Translations	$77.93
			U.S. Periodicals Index Including Soviet Translations	$105.45

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Table II: Subject Categories in Rank Order by Percentage of Increase of 1988 Average Subscription Price over 1987

Rank 1986	Rank 1987	Rank 1988	Category	Percent Increase 1987 over 1986	Percent Increase 1988 over 1987
10	21	1	Labor & Industrial Relations	4.1	14.0
1	10	2	Zoology	9.8	12.8
2	17	3	Home Economics	6.8	12.5
3	6	4	Chemistry & Physics	11.4	12.2
6	4	5	Engineering	11.7	11.0
9	15	6	Education	7.0	10.7
11	7	7	Soviet Translations	11.3	10.2
7	9	8	Psychology	10.0	9.3
21	19	9	History	6.1	9.1
2	3	9	Mathematics, etc.	12.4	9.1
16	11	10	Law	9.3	8.8
4	12	11	Agriculture	8.4	7.8
17	8	11	Children's Periodicals	10.4	7.8
13	17	12	Physical Education & Recreation	6.8	7.2
15	22	13	Literature & Language	4.0	7.0
12	16	14	Business & Economics	6.9	6.9
5	5	15	Medicine	11.6	6.7
1	20	16	Industrial Arts	4.3	6.6
13	2	16	Library & Information Sciences	13.1	6.6
3	14	16	Sociology & Anthropology	7.1	6.6
14	13	17	Fine & Applied Arts	8.1	6.0
19	24	18	Philosophy & Religion	3.0	5.8
18	18	19	Journalism & Communications	6.6	5.4
8	1	20	Political Science	13.5	4.0
20	23	21	General Interest Periodicals	3.1	1.8
			U.S. Periodicals Index Excluding Soviet Translations	9.9	9.1
			U.S. Periodicals Index Including Soviet Translations	10.3	9.4

Table III: Average of Average Annual Percentages of Increase Since 1979 by Broad Subject Categories (Excluding Soviet Translations)

GENERAL INTEREST & CHILDREN'S PERIODICALS	
General Interest	5.1
Children's	10.5
BOTH CATEGORIES*	7.8
HUMANITIES	
Fine & Applied Arts	7.2
Literature & Language	8.2
Philosophy & Religion	8.4
ALL HUMANITIES CATEGORIES	7.9
SOCIAL SCIENCES	
Business & Economics	10.0
Education	9.3
History	8.4
Journalism	9.5
Labor & Industrial Relations	12.3
Law	8.4
Library & Information Sciences	10.8
Physical Education & Recreation	9.9
Political Science	10.2
Psychology	11.4
Sociology & Anthropology	11.8
ALL SOCIAL SCIENCES CATEGORIES*	10.2
SCIENCE & TECHNOLOGY	
Agriculture	10.1
Chemistry & Physics	12.1
Engineering	11.6
Home Economics	10.2
Industrial Arts	10.9
Mathematics, etc.	11.7
Medicine	12.4
Zoology	13.8
ALL SCIENCE & TECHNOLOGY CATEGORIES*	11.6
U.S. PERIODICALS INDEX Excluding Soviet Translations	11.1

* Simple average, not weighted average

publishers and that are applicable to college and university libraries in the United States. Service charges and any Faxon discounts are excluded.

The 1988 prices for the 49 titles not available through Faxon because of publisher policy were obtained from phone calls to the individual publishers. Prices of the 47 titles that are listed in Faxon's online title file as suspended, delayed, slow, or "status-in-question," and for which Faxon made no payment to the publisher for 1988, are simply carried forward.

Each of the 47 titles that does not resume on-schedule publication during 1988 will be dropped from the 1989 index. No secondary sources of price information were consulted. (Although the method used for obtaining prices does not comply completely with ANSI Z39.20-1983, the Library Materials Price Index Committee has approved it as a satisfactory substitute.)

A total of 101 titles—including one Soviet translation—were dropped from the 1988 index for any of the following reasons: they are suspended, delayed, slow, or "status-in-question," and Faxon made no payment to the publisher for 1987 or 1988; they are free or not available on an annual subscription basis; or they are no longer published in the United States.

To replace the dropped titles, others were added using criteria established by the committee at the 1985 ALA Midwinter Meeting.

> Titles to be added should meet the definition of periodicals in the ANSI Standard, having a starting date of 1981 or later, and be selected to replace a title of the same subject category as listed in the former index. Titles should be added on a one-to-one basis, one for each title dropped. In categories where there were more titles eligible to be added than the number dropped, the titles to be added would be selected on the basis of a ranked list, ranked in order of titles with the largest number of subscriptions placed with Faxon.

Based on these criteria, 101 titles were added to the 1988 index. These were selected from Faxon's INFOSERV: New & Revised Serial Titles database; Faxon's online title file; and *Ulrich's International Periodicals Directory, 1987–1988.*

The INFOSERV database lists new serials beginning publication within the last three years (as well as serials that have changed title or are forthcoming). Among other points of access, INFOSERV can be searched by LC subject classification codes, keyword or groups of terms, and date of first issue. In cases in which the publisher of a periodical published in more than one country, place of publication was determined by checking the MARC-S (LC serials cataloging records in machine-readable form) file in Faxon's online system.

If the first place of publication listed in the MARC record was not located in the United States, the title was not included in the group of titles eligible to be used as replacements for dropped titles. (This method of confirming that a periodical is published in the United States also was used in identifying titles to be dropped.)

The average subscription price and price index for each subject category and for all subject categories combined ("U.S. Periodicals") were obtained using the methods specified in ANSI Z39.20-1983.

- In each subject category, the total annual subscription price to libraries of the titles for the year shall be divided by the number of titles in each category.
- Each of the average prices shall be divided by average price for the base period and multiplied by 100, subject category by category, to arrive at the price index for each category.
- The total annual subscription price of the titles shall be divided by the number of titles for the year to arrive at the average annual subscription price per title.
- The average subscription price for the year shall be divided by the average price for the base period and multiplied by 100 to yield the price index.

1988 highlights

Serial prices continue to climb, but at a slower rate than in previous years. The average subscription price of a U.S. periodical in 1988 is $77.93, up $6.52 from $71.41 in 1987. This year's average percentage increase in U.S. periodicals prices exluding Soviet translations declined to 9.1 percent from 9.9 percent, reversing the upward trend begun in 1985. The sample size for each year is 3,741 titles.

Based on a sample of 3,942 titles, the average price of U.S periodicals including Soviet Translations is $105.45, up just over $9 from $96.36 last year. The average percentage increase in U.S. periodicals prices including Soviet Translations declined nearly one percentage point to 9.4 percent from 10.3 percent. This year, 97 percent of the 211 titles in the Soviet Translations category increased in price (Table VII).

In 1988, the U.S. Periodical Index (USPI) continues to outstrip the Consumer Price Index. For the following comparision, CPI numbers (1967=100) were converted to the same base year as the USPI (1977=100). The actual CPI numbers are noted in parentheses.[2]

As Chart A indicates, this year U.S. periodicals prices including Soviet Translations increased more than 2.5 times the U.S. rate of inflation. Last year, 1987 prices rose at a rate more than five times the U.S. rate of inflation. Since all the reasons for this upward trend remain to be

Chart A: CPI vs. USPI

	Index			% Increase Over Previous Year		
	CPI	USPI excl. Sov.Trans.	USPI incl. Sov.Trans.	CPI	USPI excl. Sov.Trans.	USPI incl. Sov.Trans.
1986	180.9 (328.4)	264.3	261.5	1.9	8.9	8.2
1987	187.5 (340.4)	290.4	288.3	3.7	9.9	10.3
1988	(Not yet avail.)	316.9	315.5	–	9.1	9.4

Table IV: Breakdown of Mathematics, etc. Category

Subcategory	No. of Titles			Average Price			% Increase		
	1986	1987	1988	1986	1987	1988	1986	1987	1988
Mathematics	69	71	73	$181.91	$199.73	$216.18	11.8	9.8	8.2
Earth Sciences (and 9 Geography titles)	65	[illegible]	63	86.55	97.85	106.25	8.7	13.1	8.6
Life Sciences	47	46	44	186.88	218.90	244.38	12.0	17.1	11.6
Botanical Sciences	29	29	29	67.00	72.48	76.90	7.0	8.2	6.1
General Science (and 5 Astronomy titles)	28	29	29	72.36	77.57	84.93	14.5	7.2	9.5
MATHEMATICS, ETC.	238	238	238	$129.95	$146.08	159.33	9.7	12.4	9.1

Table V: Percentage of Titles Increasing in Price Per Subject Category: Three-Year Comparison

Category	1986	1987	1988	Average 1986–88
Agriculture	21	24	27	24
Business & Economics	37	36	37	37
Chemistry & Physics	78	81	81	80
Children's Periodicals	21	37	23	27
Education	36	37	35	36
Engineering	45	54	46	48
Fine & Applied Arts	22	39	34	32
General Interest Periodicals	19	28	28	25
History	20	22	21	21
Home Economics	33	78	31	47
Industrial Arts	38	40	35	38
Journalism & Communications	29	39	32	33
Labor & Industrial Relations	30	34	34	33
Law	26	27	33	29
Library & Information Sciences	34	50	36	40
Literature & Language	30	31	35	32
Mathematics, etc.	63	59	55	59
Medicine	66	65	72	68
Philosophy & Religion	24	25	26	25
Physical Education & Recreation	28	23	28	26
Political Science	39	35	33	36
Psychology	71	73	67	70
Sociology & Anthropology	52	40	46	46
Soviet Translations	55	92	97	81
Zoology	57	46	52	52
U.S. PERIODICALS INDEX Excluding Soviet Translations	39	43	41	41
U.S. PERIODICALS INDEX Including Soviet Translations	40	45	44	43

* Data not available

Table VI: U.S. Periodicals (Including Soviet Translations) 1988 Average Prices by LC Classification Codes

Classification code			No. of Titles 1988	Average Price 1988	Average Price 1987	Percent Increase 1988/1987
A	General Works		113	$23.10	$21.29	8.5
B	Philosophy, Psychology, Religion		207	48.83	45.69	6.9
	B-BD, BJ	Philosophy	37	48.64	45.86	6.1
	BF	Psychology	77	82.49	77.92	5.9
	BL-BX	Religion	93	21.05	19.91	5.7
C	Auxiliary Sciences of History		12	38.75	37.75	2.6
D	History: General & Old World		66	38.97	37.17	4.9
E-F	History: America		120	23.17	21.84	6.1
G	Geography, Anthropology, Recreation		154	56.42	50.98	10.7
	G-GC	Geography, Oceanography	35	128.98	116.44	10.8
	GN	Anthropology	19	72.56	69.81	3.9
	GV	Recreation	92	26.79	24.67	8.6
		All other G codes	8	41.38	39.50	4.7
H	Social Sciences		574	58.46	53.90	8.5
	H	General	29	58.86	51.98	13.2
	HB-HC	Ec. theory, hist. & cond.	52	76.26	71.51	6.6
	HD	Land, Agriculture, Industry	131	49.15	41.76	17.7
	HE	Transportation & Communication	30	38.34	37.82	1.4
	HF	Commerce	99	48.98	46.25	5.9
	HG-HJ	Finance, Public finance	74	56.94	51.93	9.7
	HM	Sociology (General)	29	94.50	87.25	8.3
	HQ	Family, Marriage, Woman	41	78.13	73.23	6.7
	HV	Social/public welfare, Criminology	47	67.26	64.82	3.8
		All other H codes	42	50.69	48.28	5.0
J	Political Science		78	45.61	44.28	3.0
K	Law		264	44.47	40.65	9.4
L	Education		183	45.12	40.47	11.5
M	Music		38	28.70	27.13	5.8
N	Fine Arts		76	34.24	32.44	5.5
P	Language and literature		225	32.41	30.83	5.1
	P	Philology & linguistics	20	53.65	49.00	9.5
	PN	Literary history	113	33.97	32.34	5.0
	PR-PS	English lit., American lit.	42	21.53	20.64	4.3
		All other P codes	50	29.54	27.92	5.8
Q	Science		592	$320.22	$294.14	8.9
	Q	Science (General)	40	119.27	99.55	19.8
	QA	Mathematics	107	280.01	266.12	5.2
	QB	Astronomy	16	317.12	268.12	18.3
	QC	Physics	100	482.61	432.34	11.6
	QD	Chemistry	80	459.99	431.10	6.7
	QE	Geology	29	177.97	166.10	7.1
	QH	Natural History (incl. Gen. Biol.)	81	329.67	296.82	11.1
	QK	Botany	19	118.26	108.16	9.3
	QL	Zoology	53	190.08	174.69	8.8
	QP	Physiology	47	290.74	261.05	11.4
	QR	Microbiology	20	342.75	327.65	4.6
R	Medicine		276	116.51	108.97	6.9
	R	Medicine (General)	36	123.78	119.90	3.2
	RA	Public aspects of medicine	34	115.12	113.71	1.2
	RC	Internal medicine	105	118.92	108.96	9.1
	RD	Surgery	22	100.05	93.41	7.1
	RM	Therapeutics, Pharmacy	20	109.75	99.24	10.6
		All other R codes	59	117.02	109.41	7.0
S	Agriculture		215	46.45	42.52	9.2
	S	Agriculture (General)	70	54.19	50.04	8.3
	SB	Plant culture	48	46.65	43.79	6.5
	SF	Animal culture	72	33.89	29.36	15.4
		All other S codes	25	60.50	57.67	4.9
T	Technology		591	135.61	119.06	13.9
	T	Technology (General)	28	103.44	96.96	6.7
	TA	Engineering, Civil engineering	69	219.09	205.15	6.8
	TD	Envir. tech., Sanit. eng.	27	107.76	97.43	10.6
	TH	Building construction	25	56.14	48.75	15.2
	TJ	Mechanical eng. & machinery	59	194.67	172.75	12.7
	TK	Electric. eng., Electronics	58	163.89	137.92	18.8
	TL	Motor vehicle, Aeron., Astronaut.	30	67.63	65.71	2.9
	TN	Mining engineering, Metallurgy	42	257.73	221.48	16.4
	TP	Chemical technology	85	190.09	158.80	19.7
	TS	Manufactures	64	58.25	53.47	8.9
	TT	Handicrafts, Arts & Crafts	32	22.80	22.09	3.2
	TX	Home Economics	42	42.37	39.27	7.9
		All other T codes	30	52.30	48.10	8.7
U-V	Military Science, Naval Science		23	26.20	25.02	4.7
Z	Bibliography, Library Science		130	60.67	56.33	7.7

identified, it is clear that factors other than the general inflation rate must be considered when tracking price increases for U.S. periodicals.

Table I ranks the average subscription prices of the 25 subject categories in the periodicals index. The range of prices extends from a low of $16.39 for Children's Periodicals to a high of $592.22 for Soviet Translations.

Grouping the subject categories into dollar ranges results in the following breakdown:

Under $20	One category
$20—$29	Four categories
$30—$39	Three categories
$40—$49	Five categories
$50—$59	Four categories
$60—$69	One category
$100–$149	Three categories
$150–$199	Two categories
Over $300	Two categories

No major shifts have occurred in the rankings over the past three years; however, there are now two categories over $300 and five between $100 and $200.

The comparative ranking of the 25 subject categories by percentage increases in average subscription prices for 1986–1988 (Table II) again follows no real pattern. For example, Labor and Industrial Relations with the highest percentage increase this year at 14 percent ranked 21st last year with a 4.1 percent increase. Political Science, which was ranked number one last year with a 13.5 percent increase over 1986, ranks 20th this year with only a four percent increase.

Grouping the subject categories into percentage increase ranges results in the following breakdown:

Under 5 percent	Two categories
5.0–6.9 percent	Eight categories
7.0–9.9 percent	Eight categories
10 percent+	Seven categories

Table III details the averages of the average annual percentage increases since 1979 organized by broad subject categories. Although totals for the four broad categories are simple averages and not weighted averages, the figures may prove useful for general budgeting purposes.

In 1988, Science and Technology (seven categories) remains in first place with an average increase of 11.6 percent. Social Sciences (11 categories) is again in second place with an average increase of 10.2 percent. The averages for Humanities (three categories) and General Interest and Children's Periodicals remain lower at 7.9 and 7.8 percent respectively, but have in fact decreased from 8.7 and 7.9 percent respectively.

Almost equal to last year's figure of 11.2 percent, the average of average annual percentage increases for all U.S periodicals is 11.1 percent (Soviet Translations have been excluded because the titles in that category fall into more than one broad category).

Because the category of Mathematics, Botany, Geology, and General Science covers such a wide range of subjects, Table IV provides a breakdown of this category into five subcategories that range from a low of 6.1 percent for Botanical Sciences to a high of 11.6 percent for Life Sciences, which also had the highest percentage increase in 1987. Average prices of Life Sciences titles have increased more than $25 to $244.38, while those in Mathematics have risen $16.45 to $216.18. The prices of titles in Earth Sciences, Botanical Sciences, and General Sciences now range between $75 and $110. The average percentage increase for the

Table VII: U.S. Periodicals: 1977–1988
Index of 100.0 Equivalent to Average Prices for 1977
Parenthetical information applies to 1988

U.S. PERIODICALS Excluding Soviet Translations
(100 titles dropped; 100 added;
41% of the titles increased in price)

Year	No. of Titles	Average Price	Percent Increase	Index
1977	3,218	24.59	–	100.0
1980	3,358	34.54	13.7	140.5
1981	3,425	39.13	13.3	159.1
1982	3,544	44.80	14.5	182.2
1983	3,674	50.23	12.1	204.3
1984	3,731	54.97	9.4	223.5
1985	3,731	59.70	8.6	242.8
1986	3,731	65.00	8.9	264.3
1987	3,731	71.41	9.9	290.4
1988	3,731	77.93	9.1	316.9

U.S. PERIODICALS Including Soviet Translations
(101 titles dropped; 101 added;
44% of the titles increased in price)

Year	No. of Titles	Average Price	Percent Increase	Index
1977	3,418	33.42	–	100.0
1980	3,555	45.35	13.3	135.7
1981	3,629	51.20	12.9	153.2
1982	3,750	58.72	14.7	175.7
1983	3,881	65.74	12.0	196.7
1984	3,942	72.47	10.2	216.8
1985	3,942	80.78	11.5	241.7
1986	3,942	87.38	8.2	261.5
1987	3,942	96.36	10.3	288.3
1988	3,942	105.45	9.4	315.5

AGRICULTURE
(3 titles dropped; 3 added;
27% of the titles increased in price)

Year	No. of Titles	Average Price	Percent Increase	Index
1977	138	11.58	–	100.0
1980	143	15.24	7.6	131.6
1981	146	17.24	13.1	148.9
1982	149	19.76	14.6	170.6
1983	150	21.27	7.6	183.7
1984	153	24.06	13.1	207.8
1985	153	26.05	8.3	225.0
1986	153	28.71	10.2	248.0
1987	153	31.14	8.4	268.9
1988	153	33.56	7.8	289.8

BUSINESS & ECONOMICS
(4 titles dropped; 4 added;
37% of the titles increased in price)

Year	No. of Titles	Average Price	Percent Increase	Index
1977	236	18.62	–	100.0
1980	240	25.42	10.7	136.5
1981	249	28.88	13.6	155.1
1982	253	32.67	13.1	175.5
1983	257	35.67	9.2	191.6
1984	262	38.87	9.0	208.8
1985	262	44.41	14.3	238.5
1986	262	47.15	6.2	253.2
1987	262	50.39	6.9	270.6
1988	262	53.89	6.9	289.4

CHEMISTRY & PHYSICS
(3 titles dropped; 3 added;
81% of the titles increased in price)

Year	No. of Titles	Average Price	Percent Increase	Index
1977	135	93.76	--	100.0
1980	154	137.45	16.2	146.6
1981	163	156.30	13.7	166.7
1982	165	177.94	13.8	189.8
1983	167	207.94	16.9	221.8
1984	170	228.90	10.1	244.1
1985	170	238.43	4.2	254.3
1986	170	264.05	10.7	281.6
1987	170	294.05	11.4	313.6
1988	170	329.99	12.2	352.0

CHILDREN'S PERIODICALS
(4 titles dropped; 4 added;
23% of the titles increased in price)

Year	No. of Titles	Average Price	Percent Increase	Index
1977	67	5.82	--	100.0
1980	68	7.85	17.2	134.9
1981	71	8.56	9.0	147.1
1982	76	9.90	15.7	170.1
1983	78	11.49	16.1	197.4
1984	78	12.21	6.3	209.8
1985	78	13.31	9.0	228.7
1986	78	13.76	3.4	236.4
1987	78	15.19	10.4	239.7
1988	78	16.39	7.8	281.5

EDUCATION
(4 titles dropped; 4 added;
35% of the titles increased in price)

Year	No. of Titles	Average Price	Percent Increase	Index
1977	168	17.54	–	100.0
1980	183	23.45	8.5	133.7
1981	184	25.18	7.4	143.6
1982	190	28.18	11.9	160.7
1983	199	31.36	11.3	178.8
1984	203	34.01	8.5	193.9
1985	203	37.81	11.2	215.6
1986	203	40.47	7.0	230.7
1987	203	43.30	7.0	246.9
1988	203	47.95	10.7	273.4

ENGINEERING
(14 titles dropped; 14 added;
46% of the titles increased in price)

Year	No. of Titles	Average Price	Percent Increase	Index
1977	235	35.77	--	100.0
1980	234	49.15	14.4	137.4
1981	241	54.55	11.0	152.5
1982	248	61.54	12.8	172.0
1983	265	73.18	18.9	204.6
1984	265	78.70	7.5	220.0
1985	265	84.38	7.2	235.9
1986	265	92.66	9.8	259.0
1987	265	103.49	11.7	289.3
1988	265	114.83	11.0	321.0

FINE & APPLIED ARTS
(3 titles dropped; 3 added;
34% of the titles increased in price)

Year	No. of Titles	Average Price	Percent Increase	Index
1977	141	13.72	--	100.0
1980	139	18.67	7.2	136.1
1981	140	20.51	9.9	149.5
1982	142	23.35	13.8	170.2
1983	145	25.17	7.8	183.5
1984	145	26.90	6.9	196.1
1985	145	27.03	0.5	197.0
1986	145	28.28	4.6	206.1
1987	145	30.58	8.1	222.9
1988	145	32.43	6.0	236.3

GENERAL INTEREST PERIODICALS
(7 titles dropped; 7 added;
28% of the titles increased in price)

Year	No. of Titles	Average Price	Percent Increase	Index
1977	161	16.19	--	100.0
1980	170	19.87	8.7	122.7
1981	172	21.83	9.9	134.8
1982	176	23.93	9.6	147.8
1983	177	26.43	10.4	163.2
1984	181	27.90	5.6	172.3
1985	181	26.41	-5.3	163.1
1986	181	26.95	2.0	166.4
1987	181	27.79	3.1	171.7
1988	181	28.29	1.8	174.7

HISTORY
(7 titles dropped; 7 added;
21% of the titles increased in price)

Year	No. of Titles	Average Price	Percent Increase	Index
1977	138	12.64	--	100.0
1980	143	15.77	7.5	124.8
1981	143	17.96	13.9	142.1
1982	143	20.37	13.4	161.2
1983	151	22.43	10.1	177.5
1984	151	23.68	5.6	187.3
1985	151	25.55	7.9	202.1
1986	151	26.04	1.9	206.0
1987	151	27.64	6.2	218.7
1988	151	30.16	9.1	238.6

HOME ECONOMICS
(6 titles dropped; 6 added;
31% of the titles increased in price)

Year	No. of Titles	Average Price	Percent Increase	Index
1977	74	18.73	--	100.0
1980	78	24.63	6.1	131.5
1981	79	27.34	11.0	146.0
1982	84	34.27	25.3	183.0
1983	88	35.68	4.1	190.5
1984	90	37.15	4.1	198.3
1985	90	41.04	10.5	219.1
1986	90	45.59	11.1	243.4
1987	90	48.67	6.8	259.9
1988	90	54.73	12.5	292.2

Table VII (Continued): U.S. Periodicals: 1977–1988
Index of 100.0 Equivalent to Average Prices for 1977
Parenthetical information applies to 1988

INDUSTRIAL ARTS
(3 titles dropped; 3 added;
35% of the titles increased in price)

Year	No. of Titles	Average Price	Percent Increase	Index
1977	87	14.37	--	100.0
--				
1980	91	20.70	17.3	144.1
1981	91	22.62	9.3	157.4
1982	99	27.13	19.9	188.8
1983	104	28.83	6.3	200.6
1984	106	30.40	5.4	211.6
1985	106	35.09	15.4	244.2
1986	106	39.75	13.3	276.6
1987	106	41.45	4.3	288.4
1988	106	44.20	6.6	307.6

JOURNALISM & COMMUNICATIONS
(4 titles dropped; 4 added;
32% of the titles increased in price)

Year	No. of Titles	Average Price	Percent Increase	Index
1977	85	16.97	--	100.0
--				
1980	83	27.34	14.6	161.1
1981	85	29.80	9.0	175.6
1982	86	33.91	13.8	199.8
1983	88	37.39	10.3	220.3
1984	90	39.25	5.0	231.3
1985	90	46.08	17.4	271.5
1986	90	47.54	3.2	280.1
1987	90	50.66	6.6	298.5
1988	90	53.39	5.4	314.6

LABOR & INDUSTRIAL RELATIONS
(4 titles dropped; 4 added;
34% of the titles increased in price)

Year	No. of Titles	Average Price	Percent Increase	Index
1977	61	11.24	--	100.0
--				
1980	64	18.84	19.7	167.6
1981	65	21.68	15.1	192.9
1982	65	24.72	14.0	219.9
1983	69	29.22	18.2	260.0
1984	70	29.87	2.2	265.7
1985	70	34.75	16.3	309.2
1986	70	37.14	6.9	330.4
1987	70	38.65	4.1	343.9
1988	70	44.06	14.0	392.0

LAW
(5 titles dropped; 5 added;
33% of the titles increased in price)

Year	No. of Titles	Average Price	Percent Increase	Index
1977	229	17.36	--	100.0
--				
1980	240	23.00	9.6	132.5
1981	242	24.80	7.8	142.9
1982	255	27.53	11.0	158.6
1983	267	29.66	7.7	170.9
1984	273	31.31	5.6	180.4
1985	273	35.13	12.2	202.4
1986	273	36.44	3.7	209.9
1987	273	39.82	9.3	229.4
1988	273	43.33	8.8	249.6

LIBRARY & INFORMATION SCIENCES
(0 titles dropped; 0 added;
36% of the titles increased in price)

Year	No. of Titles	Average Price	Percent Increase	Index
1977	89	16.97	--	100.0
--				
1980	97	23.25	11.7	137.0
1981	103	28.47	22.5	167.8
1982	111	33.52	17.7	197.5
1983	117	36.72	9.5	216.4
1984	118	38.85	5.8	228.9
1985	118	40.66	4.7	239.6
1986	118	42.82	5.3	252.4
1987	118	48.42	13.1	285.3
1988	118	51.61	6.6	304.1

LITERATURE & LANGUAGE
(1 title dropped; 1 added;
35% of the titles increased in price)

Year	No. of Titles	Average Price	Percent Increase	Index
1977	138	11.82	--	100.0
--				
1980	144	15.30	10.5	129.4
1981	146	17.30	13.1	146.4
1982	156	19.39	12.1	164.0
1983	157	21.19	9.3	179.3
1984	158	23.02	8.6	194.8
1985	158	24.18	5.0	204.6
1986	158	25.21	4.2	213.3
1987	158	26.21	4.0	221.7
1988	158	28.04	7.0	237.3

MATHEMATICS, BOTANY, GEOLOGY, & GENERAL SCIENCE
(3 titles dropped; 3 added;
55% of the titles increased in price)

Year	No. of Titles	Average Price	Percent Increase	Index
1977	185	47.13	--	100.0
--				
1980	200	67.54	14.8	143.3
1981	206	75.62	12.0	160.4
1982	217	87.99	16.4	186.7
1983	228	97.26	10.5	206.4
1984	238	106.56	9.6	226.1
1985	238	116.93	9.7	248.1
1986	238	129.95	11.1	275.7
1987	238	146.08	12.4	310.0
1988	238	159.33	9.1	338.1

MEDICINE
(2 titles dropped; 2 added;
72% of the titles increased in price)

Year	No. of Titles	Average Price	Percent Increase	Index
1977	172	51.31	--	100.0
--				
1980	172	73.37	15.9	143.0
1981	172	86.38	17.7	168.3
1982	172	102.87	19.1	200.5
1983	177	112.72	9.6	219.7
1984	182	125.57	11.4	244.7
1985	182	137.92	9.8	268.8
1986	182	151.77	10.0	295.8
1987	182	169.36	11.6	330.1
1988	182	180.67	6.7	352.1

PHILOSOPHY & RELIGION
(2 titles dropped; 2 added;
26% of the titles increased in price)

Year	No. of Titles	Average Price	Percent Increase	Index
1977	107	10.89	--	100.0
--				
1980	110	14.73	11.2	135.3
1981	111	15.40	4.5	141.4
1982	117	17.92	16.4	164.6
1983	126	20.21	12.8	185.6
1984	130	21.94	8.6	201.5
1985	130	24.30	10.8	223.1
1986	130	24.85	2.3	228.2
1987	130	25.60	3.0	235.1
1988	130	27.09	5.8	248.8

PHYSICAL EDUCATION & RECREATION
(5 titles dropped; 5 added;
28% of the titles increased in price)

Year	No. of Titles	Average Price	Percent Increase	Index
1977	130	10.00	--	100.0
--				
1980	136	13.83	12.7	138.3
1981	139	15.42	11.5	154.2
1982	142	16.91	9.7	169.1
1983	150	19.07	12.8	190.7
1984	151	20.54	7.7	205.4
1985	151	23.72	15.5	237.2
1986	151	24.78	5.3	249.8
1987	151	26.67	6.8	266.7
1988	151	28.60	7.2	286.0

POLITICAL SCIENCE
(8 titles dropped; 8 added;
33% of the titles increased in price)

Year	No. of Titles	Average Price	Percent Increase	Index
1977	123	14.83	--	100.0
--				
1980	127	19.30	10.5	130.1
1981	128	22.69	17.6	153.0
1982	133	25.89	14.1	174.6
1983	136	28.97	11.9	195.3
1984	136	32.43	11.9	218.7
1985	136	32.72	0.9	220.6
1986	136	35.19	7.5	237.3
1987	136	39.95	13.5	269.4
1988	136	41.55	4.0	280.1

PSYCHOLOGY
(1 title dropped; 1 added;
67% of the titles increased in price)

Year	No. of Titles	Average Price	Percent Increase	Index
1977	110	31.74	--	100.0
--				
1980	121	41.95	10.1	132.2
1981	125	47.27	12.7	148.9
1982	131	54.21	14.7	170.8
1983	136	59.31	9.4	186.9
1984	138	69.74	17.6	219.7
1985	138	76.34	9.5	240.5
1986	138	83.71	9.7	263.7
1987	138	92.05	10.0	290.0
1988	138	100.57	9.3	316.8

SOCIOLOGY & ANTHROPOLOGY
(4 titles dropped; 4 added;
46% of the titles increased in price)

Year	No. of Titles	Average Price	Percent Increase	Index
1977	128	19.68	--	100.0
--				
1980	135	27.56	16.3	140.0
1981	136	31.37	13.8	159.4
1982	145	36.38	16.0	184.9
1983	149	40.54	11.4	206.0
1984	149	43.87	8.2	222.9
1985	149	50.87	16.0	258.5
1986	149	56.31	10.7	286.1
1987	149	60.29	7.1	306.4
1988	149	64.27	6.6	326.6

SOVIET TRANSLATIONS
(1 title dropped; 1 added;
97% of the titles increased in price)

Year	No. of Titles	Average Price	Percent Increase	Index
1977	200	175.41	--	100.0
--				
1980	197	229.68	13.8	130.9
1981	204	253.79	10.5	144.7
1982	206	298.22	17.5	170.0
1983	207	341.04	14.4	194.4
1984	211	381.86	12.0	217.7
1985	211	453.47	18.8	258.5
1986	211	483.09	6.5	275.4
1987	211	537.54	11.3	306.4
1988	211	592.22	10.2	337.6

ZOOLOGY
(3 titles dropped; 3 added;
52% of the titles increased in price)

Year	No. of Titles	Average Price	Percent Increase	Index
1977	81	33.69	--	100.0
--				
1980	86	44.58	11.0	132.3
1981	88	48.32	8.4	143.4
1982	89	61.07	26.4	181.3
1983	93	70.74	15.8	210.0
1984	94	78.35	10.8	232.6
1985	94	90.75	15.8	269.4
1986	94	102.83	13.3	305.2
1987	94	112.91	9.8	335.1
1988	94	127.33	12.8	378.0

whole category is 9.1 percent, a figure identical to that of the entire 1988 index excluding Soviet Translations.

Table V offers a three-year comparison of the percentage of titles increasing in price in each subject category. For 1988, 97 percent of Soviet Translations increased in price while only 21 percent of History titles underwent price increases. Over the three-year period, 81 percent of Soviet Translations increased in price edging out Chemistry and Physics, a category in which 80 percent of the titles increased in price for the same period. For 1988, these categories exhibit the highest average prices at $592.22 and $329.99 respectively.

Table VI provides a detailed subject breakdown of the titles in the periodicals index (including Soviet Translations) by one- and two-letter LC classification codes assigned to each title in Faxon's online title file. It also lists average prices for 1987 and 1988 as well as percentage increases.

Differences from 1987 range from the highest increase of 19.8 percent for Science (General) (LC Code Q) with an average price of $119.27, followed closely by a 19.7 percent increase in Chemical Technology titles (LC Code TP) with an average price of $190.09, to an increase of 1.2 percent for titles in the Public Aspects of Medicine (LC Code RA) with an average price of $115.17. This year there are no percentage decreases.

Table VII comprises the price indexes for U.S. Periodicals and for the 25 individual subject categories. For 1988, the base year was changed from 1978 to 1977. Including Soviet Translations, 44 percent of the titles increased in price. Excluding Soviet Translations, 41 percent of U.S. periodicals increased in price.

Faxon is aware that the average prices reported in these annual studies of 3,942 titles are consistently lower than those derived from Faxon's own studies of larger samples as well as from studies conducted by individual libraries of their serials collections. Percentages of increases are usually comparable, but prices actually paid by libraries are traditionally higher than those reported in the sample.

For these reasons and with the approval of the committee, Faxon is investigating the feasibility of basing the U.S. Periodicals Price Index on all U.S. titles contained in Faxon's online title database. Faxon will report its findings in this undertaking directly to the committee.

Responsibility for continuing the indexes for periodicals and serial services rests with ALA's Library Materials Price Index Committee. The current committee chair is Rebecca T. Lenzini, vice president and director, Academic Information Services, The Faxon Company, 15 Southwest Park, Westwood, MA 02090.

References

1. American Standards Institute. American National Standard for Library and Information Sciences and Related Publishing Practices—Library Materials—Criteria for Price Indexes. ANSI Z39.20-1983, New York, 1983.
2. The Consumer Price Index numbers (all urban consumers) for 1987 were obtained by phoning the U.S. Bureau of Labor Statistics, CPI Office, Washington, D.C. The actual CPI numbers (1967=100) were converted to a base year of 1977=100 by multiplying each index number by 100 and then dividing by the CPI for 1977 (181.5).

The 25th U.S. Serial Services Survey

Price Index for 1988: U.S. Serial Services

By Mary Elizabeth Clack

THIS IS THE 25th survey of U.S. serial services, the last produced by Norman Brown and Jane Phillips for 1984 prices (*LJ*, August 1984, p. 1422-25). In 1985, responsibility for production of the U.S. Periodicals and U.S. Serial Services Indexes was transferred to the American Library Association Resources and Technical Services Division—Resources Section Library Materials Price Index Committee working in conjunction with the Faxon Company.

The U.S. Serial Services Index was not easily automated, since many of the prices for serial services are not in Faxon's database (these are prices for titles that must be ordered directly from publishers). In 1985 and 1986 the committee studied the index and surveyed acquisitions and collection development librarians and library financial officers to determine whether production of the index should continue. Over 50 percent of the respondents to the questionnaire stated that the index was an important tool and useful in the budgeting process.

The committee then decided to test produce the index in 1987 to see what problems would arise. In this process, it was noted that over 600 of the titles in the sample were not priced by Faxon and would have to be added manually. It was also noted that for some titles for which no "list price" is available, the price would have to be taken from a library's acquisition records. The third problem involved titles for which the "current edition" was actually published more than a year ago, but was still available and being sold at a 1988 price. (The committee voted to include these titles in the index with their current price.)

Mary Elizabeth Clack is Serial Records Librarian, Harvard College Library

After a three-year lapse and with a better knowledge of the areas where problems would arise, the index was produced for 1988 following the ANSI standard, which defines a U.S. Serial Service and the methodology to be followed in producing the price index. Titles included in this index fit the ANSI definition: "a periodical publication that revises, cumulates, abstracts, or indexes information in a specific field on a regular basis by means of new or replacement issues, pages, or cards, intended to provide information otherwise not readily available."[1]

1. The price index is organized by subject category.

2. Prices for 1988 were taken from publisher information (list price) or a library acquisition record (here, Harvard University libraries' acquisitions records were used). If a 1988 price was not found, the 1987 price was carried over (that is permitted for one year only).

3. Discontinued titles or titles no longer considered serial services were dropped and replaced.

4. The guidelines for computation of average prices and price index were followed.

The data shows that the average price of a U.S. Serial Service is $341.32 for 1988. It should be noted that Soviet Translations (a category of journal titles) were removed from this index and have been part of the U.S. Periodicals Index since 1985. The absence of this category in the index in 1988 will affect comparison of average price with the 1977–1984 data. Table 1 shows the average price and index for all services and Tables 2-7 give data for the six subject categories. Table 8, a separate table for the Wilson indexes, was produced by the Wilson Company. Wilson has given an average price and index based on the prices that its subscribers paid each year divided by the total number of subscribers. The 1977 and 1978 figures represent 18 indexes, and 1979–1988 represent 19 indexes (reflecting the inclusion of *General Science Index*, begun in 1979).

References

1. American National Standards Institute, Inc. American National Standard for Library and Information Sciences and Related Publishing Practices—Library Materials—Criteria for Prices Indexes (ANSI Z39.20—1983). ANSI, 1983, p. 9.

Serial Services

Table 1:
U.S. SERIALS SERVICES
(excluding "Wilson Index"; excluding Soviet Translations as of 1988)

Year	No. of Titles	Average Price	Percent Increase	Index
1977	1,432	$142.27	–	100.0
1978	1,426	153.95	8.2	108.2
1979	1,450	171.06	11.1	120.2
1980	1,470	194.21	13.5	136.5
1981	1,477	219.75	13.2	154.5
1982	1,494	244.52	11.3	171.9
1983	1,525	274.72	12.4	182.1
1984	1,537	295.13	7.4	207.4
1985–87	n.a.	n.a.	n.a.	n.a.
1988	1,310	341.32	n.a.	239.9

Table 2:
BUSINESS

Year	No. of Titles	Average Price	Percent Increase	Index
1977	255	$216.28	–	100.0
1978	262	222.45	2.9	102.9
1979	270	249.05	12.0	115.2
1980	279	294.00	18.0	135.9
1981	271	343.29	16.8	158.7
1982	276	371.03	8.1	171.6
1983	286	417.83	12.6	193.2
1984	289	437.07	4.6	202.1
1985–87	n.a.	n.a.	n.a.	n.a.
1988	281	458.33	n.a.	211.9

Table 3:
GENERAL & HUMANITIES

Year	No. of Titles	Average Price	Percent Increase	Index
1977	113	$90.44	–	100.0
1978	113	94.88	4.9	104.9
1979	114	118.83	25.2	131.4
1980	118	124.28	4.6	137.4
1981	120	142.04	14.3	157.1
1982	119	160.03	12.7	176.9
1983	120	186.67	16.6	206.4
1984	122	196.55	5.3	217.3
1985–87	n.a.	n.a.	n.a.	n.a.
1988	116	225.95	n.a.	249.8

Table 4:
LAW

Year	No. of Titles	Average Price	Percent Increase	Index
1977	229	$126.74	--	100.0
1978	235	137.91	8.8	108.8
1979	241	158.65	15.0	125.2
1980	248	184.38	16.2	145.5
1981	251	212.85	15.4	167.9
1982	256	232.61	9.3	183.5
1983	268	249.64	7.3	197.0
1984	272	275.23	10.3	217.2
1985–87	n.a.	n.a.	n.a.	n.a.
1988	265	338.13	n.a.	266.8

Table 5:
SCIENCE & TECHNOLOGY

Year	No. of Titles	Average Price	Percent Increase	Index
1977	297	$141.16	--	100.0
1978	289	160.61	13.8	113.8
1979	290	173.96	8.3	123.2
1980	288	191.35	10.0	135.6
1981	287	214.01	11.8	151.6
1982	286	229.98	7.5	162.9
1983	282	270.94	17.8	191.9
1984	281	295.36	9.0	209.2
1985–87	n.a.	n.a.	n.a.	n.a.
1988	302	378.37	n.a.	268.0

Table 6:
SOCIAL SCIENCES

Year	No. of Titles	Average Price	Percent Increase	Index
1977	134	$145.50	--	100.0
1978	136	153.94	5.8	105.8
1979	139	169.55	10.1	116.5
1980	143	190.07	12.1	130.6
1981	144	215.12	13.2	147.8
1982	149	249.03	15.8	171.2
1983	159	266.43	7.0	183.1
1984	159	283.82	6.5	195.[illegible]
1985–87	n.a.	n.a.	n.a.	n.a.
1988*	156	441.67	n.a.	303.6

* The average price includes two expensive titles, "Leading National Advertiser Multi-media Report Service" at $8750 and "LNA-PIB Magazine Service," priced at $7300. If these titles are omitted, the average price drops to $343.18

Table 7:
U.S. DOCUMENTS

Year	No. of Titles	Average Price	Percent Increase	Index
1977	204	$62.88	--	100.0
1978	196	72.52	15.3	115.3
1979	198	75.87	4.6	120.7
1980	197	78.87	4.0	125.4
1981	200	84.48	7.1	134.4
1982	202	99.05	17.2	157.5
1983	203	101.24	2.2	161.0
1984	203	97.37	-3.8	154.9
1985–87	n.a.	n.a.	n.a.	n.a.
1988	190	101.88	n.a.	162.0

Table 8:
WILSON INDEX

Year	No. of Titles	Average Price	Percent Increase	Index
1977	18	$87.51	--	100.0
1978	18	95.99	9.7	109.7
1979	19	104.68	9.1	119.6
1980	19	114.05	9.0	130.3
1981	19	122.30	7.2	139.8
1982	19	132.55	8.4	151.5
1983	19	139.93	5.6	159.9
1984	19	155.77	11.3	178.0
1985	19	176.98	13.6	202.2
1986	19	193.54	9.4	221.2
1987	19	203.59	5.2	232.6
1988*	19	211.31	3.8	241.5

* The 1988 average price and index are estimated figures

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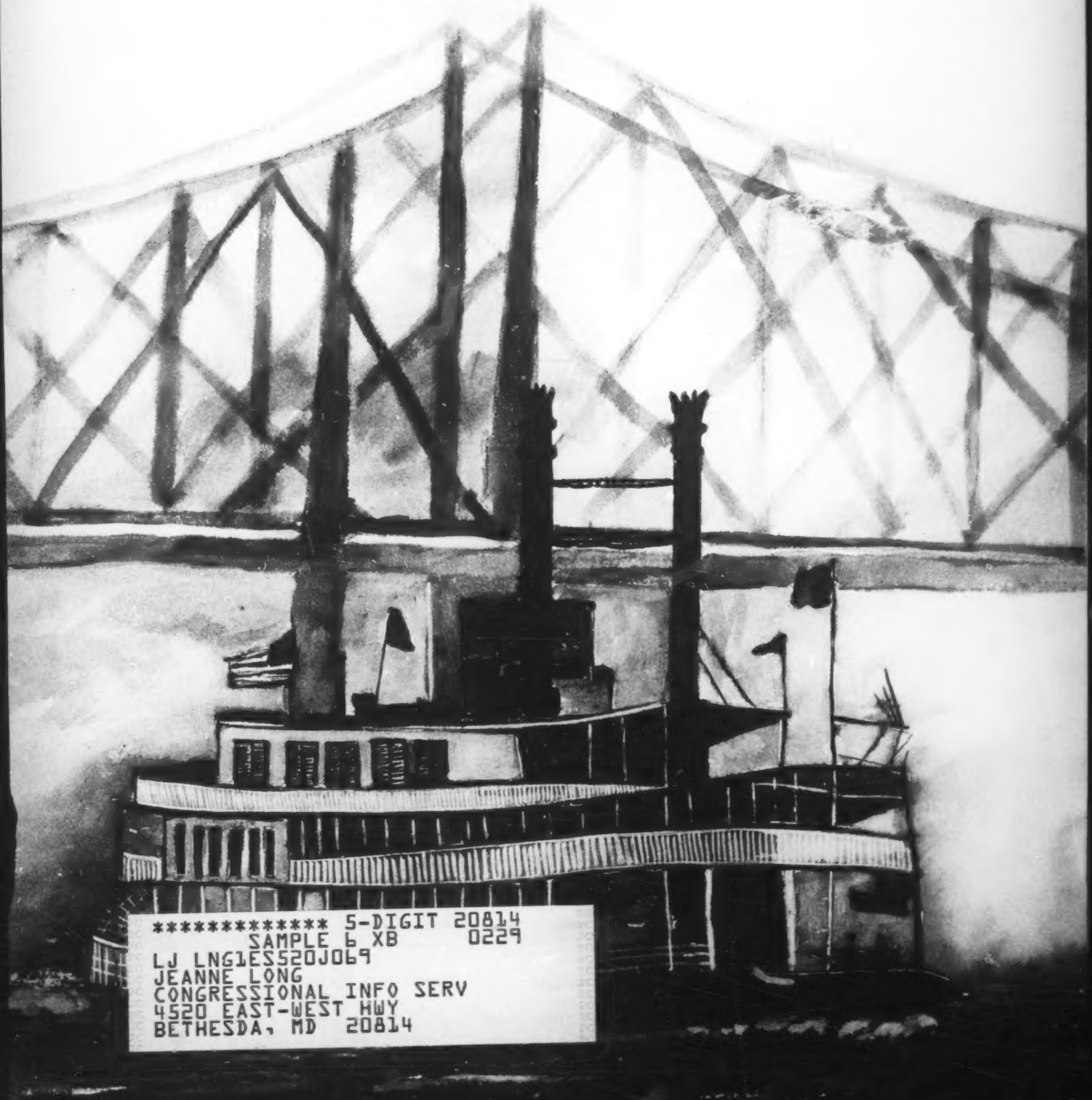

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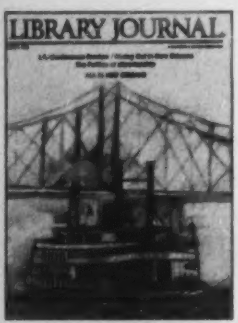

An elegant backdrop to the ALA Annual Conference, 1988, is the Greater New Orleans Mississippi River Bridge. Our conference coverage begins on page 51. Cover illustration by Gilbert Fletcher

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ONLINE DATABASES

BY CAROL TENOPIR

Evaluating Online Systems

A SPECIAL LIBRARIAN recently commented to me that the most important skill she was looking for in a person to fill a librarian position is the ability to evaluate online systems. She needs someone who can take the time to find out about all of the likely online systems on the market, compare them by criteria established for her organization, and recommend what systems should be added to her search services. Like many of us, this librarian regularly accesses systems that she feels comfortable searching, but she doesn't have time to study whether others might be as good or even better for the needs of her clientele.

Online systems

The importance of these evaluation skills is pointed out by the January 1988 edition of the Cuadra/Elsevier *Directory of Online Databases*, which lists 555 publicly available online services worldwide. This 555 actually represents a slowdown in growth, according to Cuadra Associates. There was a net growth of only 27 new online systems in 1987, which is "only 36 percent of the growth in 1986 and 29 percent of the growth during 1985." For the information professional, 555 systems is still a lot to cope with. Many of the 555 are not of interest to libraries, yet there are dozens of online systems of potential interest in a library setting.

At the 1988 Australian Online Meeting and 1988 National Online Meeting in New York, Martha Williams (University of Illinois-Urbana) presented an overview of online system use by the information center/library market in the United States. She regularly samples 12 percent of this market (550 institutions) by analyzing their online bills. Libraries and information centers are still concentrating their online use on a few systems.

Williams identified 16 systems libraries used, including DIALOG, Mead Data Central (LEXIS/NEXIS), BRS, STN International, Westlaw, NLM Medlars, Orbit, WILSONLINE, Dow Jones News Retrieval, VU/TEXT, Newsnet, Questel, and The Source. The first seven of these systems account for 98 percent of the use and 97 percent of the expenditures in the library and information center market. DIALOG and Mead Data Central together account for 72 percent of the usage and 80 percent of the expenditures, figures that have held relatively steady since Williams began collecting data in 1982.

Evaluating databases

For a more detailed discussion of selecting an online system, see Susanne M. Humphrey and Biagio John Melloni's *Databases: a Primer for Retrieving Information by Computer*, Prentice-Hall, 1986. The *number* of databases is an important evaluation criterion if you are trying to meet the needs of the greatest number of people with one system. One reason to use DIALOG, for example, may be because its many databases will give you the greatest variety.

Perhaps more important than just the number is the *uniqueness* of the databases offered. Even if a system does not have a large number of databases, if the ones it does have are available nowhere else, the system is valuable.

Neither number nor uniqueness matters unless the *subjects* of the databases are of interest to your users. What subjects are covered by the individual databases on the system and are there systemwide specializations? Orbit has concentrations in patents and petroleum information. BRS has many education databases available nowhere else.

Different systems are better for different *types* of databases. If you need statistical information you may be better off with a system that specializes in numeric information and provides you with numeric manipulation capabilities. I.P. Sharp offers many numeric databases with a command language that will let you exploit the unique properties of statistical information. DIALOG's Business Connection will calculate reports that cannot be done with the regular DIALOG software. Full-text databases also have particular retrieval and display needs ("Searching Full-Text Databases," *LJ*, May 1, p. 60-61).

Time coverage of databases may be outside of the control of the online system, but often depends on the system. The databases on WILSONLINE mostly go back only to the beginning of the system (generally 1983). The information on NEXIS mostly starts with 1981, when NEXIS began. *Timeliness* refers to how often databases on a system are updated and whether or not a system usually meets its update schedule. Updating ranges from almost instantaneous for stock market quotes to yearly or less for directories or encyclopedias.

How systems help you search different databases will be important to searchers who plan to use many databases. Cross-file consistency makes multifile searching much easier. Medlars and WILSONLINE offer a fair amount of consistency and vocabulary control across databases, DIALOG has very little. Multifile search capabilities vary from allowing only a single file at a time to be searched on Medlars, to user-specified file groupings on systems (DIALOG and Mead).

Structure

Structure means how the system processes the records to make them searchable. Most of the powerful online systems create secondary inverted indexes that retain field information and word location information so searchers get fast response times even with complex searches using Boolean and proximity operators. Some systems still have no proximity features, making it necessary to "stringsearch" (sequentially scan) the database for free-text phrases, which is extremely limiting. (Medlars requires you to create a 300 or smaller item subject before stringsearching.)

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Systems such as The Source and Compuserve do not provide inverted indexes for every word in most of their databases, making it impossible to do the kind of free-text searching possible in the other textual systems.

There are other stuctural features to look for that impact search capabilities. Can fields be searched separately or all together as the searcher specifies? Can the inverted index be displayed online and can terms be selected directly from the display? To what fields does a subject search default? (If author is included in the default you may get many false drops.) Can individual words in a multiword descriptor be searched?

Search features

Many of the factors mentioned affect the power of the query language. You might use a prioritized list of desired searching features and match it against a system's capabilities. For textual databases these features should include such things as Boolean operations including nesting, set building, proximity operations, ranging, greater than or less than, truncation, and field specification. For full-text searching, all of the above apply plus searching for words in the same sentence and weighting by number of times search words occur in a document. For numeric databases add statistical manipulation and computations.

Interface/help features

In addition to power, the interface to the query language should be evaluated. A good interface depends on the sophistication and experience of the intended users. For novice or infrequent users is there a menu driven interface? For more frequent users is there a command option? Can either be selected? How easy is the system to learn (from the viewpoint of users)? Are online helps available? Are the error messages meaningful?

Output features

Output refers to online display, online printing or downloading, or to offline printing. Are offline prints and online printing both available? How much flexibility does the user have over the formats? Are there system-supplied formats as well as user-designed formats? Are special output formats available, such as label generation (DIALOG) or card catalog output (WILSONLINE)? For full-text files, can you print only those portions of the documents that contain search terms? For numeric databases can you print in columnar or report formats? Can output easily be transferred to a word processing, database, or spreadsheet program for further refinement? Is offline and online sorting available?

Support

How much does the vendor help and support you? Is there a toll-free number, preferably available as many hours as the system is up? If you call do you get immediate and accurate answers to your questions?

Can you learn to search the systems from the manuals? If your library is expanding the number of online services offered, it is especially important to have good information in the manuals because you may be searching some systems infrequently. Are the manuals regularly updated and is there a fee for this service? Are database summary sheets and other search aids available?

Does the system provide a newsletter on a regular schedule? Is training available in your area? What does it cost? Are any tutorials, computer-assisted instruction, practice files, videotapes, or other learning aids available? NEXIS has a new microcomputer tutorial; DIALOG, WILSONLINE, and BRS have all issued videos in the last year.

Finally, does the system sell any front-end software that makes searching easier? LEXIS/NEXIS, DIALOG, WILSONLINE, Medlars, Dow Jones News Retrieval all have microcomputer software. DIALOG and BRS offer simplified versions of their systems available online.

Reliability/technical matters

What is the response time at peak times and at off-peak hours? Of course the most important response time is when you will be doing the most searching, so average times that include responses in the middle of the night are fairly meaningless. Does the software or hardware of the system impose arbitrary limitations on your searching? For example, Medlars allots limited time slices to each user. In complex operations a user will need to respond many times to a time overflow message. Other systems have limits on the number of word variations that can be retrieved in a search. BRS and WILSONLINE will process only 100 stem variations.

Does the system experience frequent downtime (scheduled or unscheduled)? How will this affect your users and search operations? Are several telecommunications networks supported, so if one goes down you will have an alternate path to the system? What transmission speeds are supported? Are there any special hardware requirements? Mead Data Central used to require their own dedicated terminal; now you can use a microcomputer with Mead's software, but dumb terminals won't work.

Costs

What is the basis of pricing? Is it based on connect hour, information retrieved, or a combination? Are there minimum usage charges, per month or per year? Are subscriptions required or are they available to reduce costs for high-volume users? Does the price formula seem fair and easy to estimate? Have costs held relatively steady over time?

Williams calculated some average per hour costs on the major systems. Overall, across all systems, libraries spent an average of $122 per hour online in 1986. Per hour costs for individual systems in 1982 and 1986 were:

System	1982	1986
Mead	$150	$141
DIALOG	93	126
Medlars	28	39
BRS	49	69
Orbit	109	130
Westlaw	30	100
STN	122	203

Oldies aren't the only goodies

Multiple system use is made easier with Online Inc.'s *Online International Command Chart*, which presents commands for 15 U.S. systems as well as many Canadian and European systems. If you know one system well it is easy to find how you would do a similar function on another system. (Online Inc., 11 Tannery Lane, Weston, CT 06883; 203-227-8466.) In addition, the multiple system gateways such as EasyNet allow anyone to access many online systems without having individual contracts with the systems or without knowing all of the command languages. Even before really good front-end software that knows dozens or hundreds of systems (and even without a universal common command language), libraries today do not need to limit their online use to one or two "old favorites."

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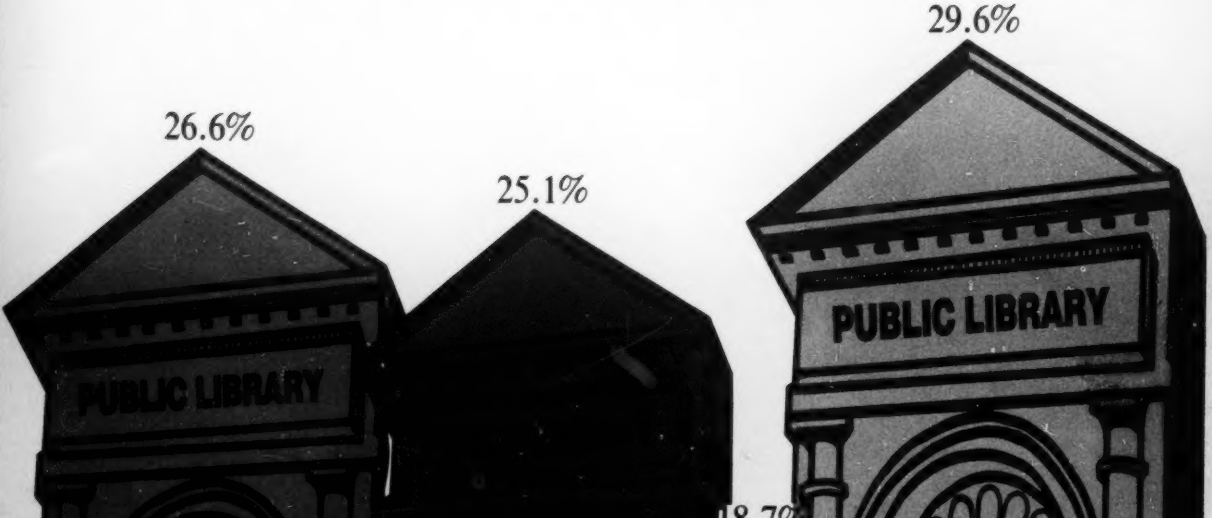
Public Library Referenda 1987

THE ECONOMIC OUTLOOK FOR LIBRARIES



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Revenues and expenses for public libraries were up in 1987, and growth in both areas can be expected in the future. Is this a call for optimism or opportunism? See "The Economic Outlook for Libraries," page 18. Cover by Gilbert Fletcher

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Another year of economic growth will spur increases in both funding and costs for public libraries

The Economic Outlook for Libraries

By Jane Dietzel

THE ECONOMY will remain healthy throughout 1988, and will have a positive effect on funding for the nation's public libraries. The single most important phenomenon affecting the performance of the U.S. economy in 1988 is not last October's stock market crash, but the slow and steady decline in the value of the dollar that has taken place since 1985.

Since New York is the home of the communications industry as well as Wall Street, the crash grabbed most of the headlines, but its effects have not been widely felt in other parts of the country. The weaker dollar has had a much broader impact on many sectors, and will be the main force behind the economy's continued strength in 1988. The side effect of the weaker dollar is higher prices for imported goods and industrial materials, which will send general inflation and library costs up more quickly in the next year.

A robust economy

Cahners Economics forecasts that the real, inflation-adjusted GNP will rise 2.8 percent this year, before slowing to 0.7 percent in 1989 (Figure 1). After the crash, gloomy economists predicted that sharp declines in consumer expenditures and business investment would create huge inventory pile-ups, reductions in manufacturing output, and a recession in the first half of the year.

The latest data, however, show that the economy remains robust. GNP growth for the first quarter of the year is estimated to have been a moderate 2.3 percent, but the sources of the increase point to underlying strength that will carry through the rest of the year. Consumers have maintained moderately good spending levels, especially for cars and other durable goods, and business expenditures are rising. The manufacturing sector has seen a dramatic improvement in its trade deficit, since the weaker dollar has made U.S. goods more competitive in both U.S. and foreign markets.

Proposed federal library cuts

Another year of economic growth provides federal, state, and local governments with the revenues enabling them to increase library funding, provided that libraries receive their established budget priority. Historically, the responsibility for library support, along with the nation's education needs, has rested with state and local governments and the private sector.

Table A: Expenditures by Public Libraries (millions of $)

Expenditures	1986	1987
Books	$432.24	$504.65
Periodicals	64.75	76.34
Other print materials	6.74	7.72
Manuscripts & archives	0.25	0.28
AV materials	39.46	47.32
AV equipment	3.50	5.85
Microform	9.43	12.46
Computer materials	1.50	2.09
Computer fees	6.31	9.67
Preservation	9.12	9.39
Unspecified	50.76	20.11
Total	**$624.06**	**$695.88**

Source: *American Library Directory*/Cahners Economics

While the Reagan administration continues to support the complete elimination of federal aid to libraries, asserting that the goal of making library services available to virtually every community has been achieved, its FY 1989 budget includes the first request for library funds in six years. The proposal calls for a total of $76 million to be spent on new programs for services to the disadvantaged, resource sharing, as well as research and assessment. Traditional programs, which received $135.1 million for FY 1988, would be left unfunded under the plan. The administration also proposes that federal aid to state and local

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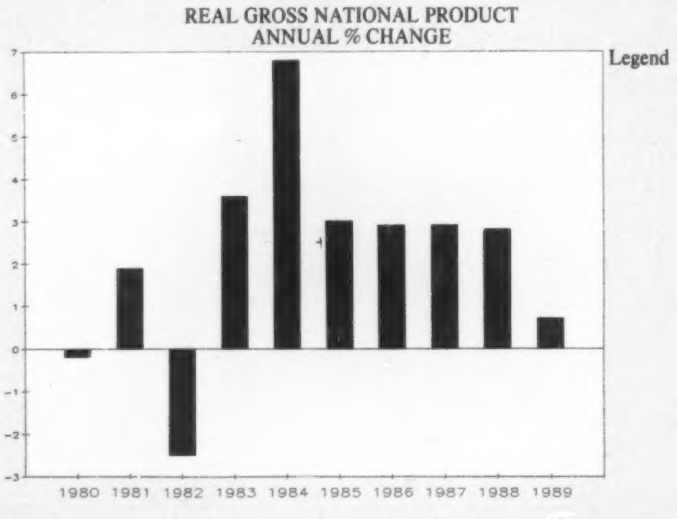
Jane Dietzel is an Economist, Cahners Publishing, Newton, Massachusetts

> *"The side effect of the weaker dollar is higher prices for imported goods and industrial materials"*

FIGURE 1



governments for libraries be reduced to $121.6 million in FY 1989 from its current $149.5 billion level.

During the first half of the year, when the economic outlook appeared bleakest, most analysts believed that the Congress would swallow the president's budget and make few major additions for fear of triggering Gramm-Rudman-Hollings cuts. Now that most economists are busy raising their forecasts, the Democratic Congress is more likely to insist on election-year funding for the popular library programs.

Regional patterns in state spending

Most state budgets are in much better shape than they were a year ago. Overall revenues rose 6.8 percent in 1986, and an estimated 6.5 percent in 1987. State spending for libraries rose to $548.5 million in 1986 (the latest year for which we have complete data), or $2.28 per capita, but spending levels varied widely from state to state. Spending per person was highest in states with small or sparse populations—Alaska ($15.52), Hawaii ($12.81)—but on a regional basis, per capita spending levels are much more closely linked to recent economic performance (Figure 2).

Average per capita state spending for libraries was strongest in the Northeast, where the service-oriented economy has seen strong growth in the past few years. Employment, consumer spending, and output remain strong in the New England states and most of the Middle Atlantic region. Spending was strongest in New York ($4.38) and Rhode Island ($4.27), and weakest in New Hampshire ($1.95).

Spending was weaker in the West and the South, where more local economies are dependent on the agricultural and mining industries. Spending was strong in the coastal regions ($2.75 in the South Atlantic, $2.33 in the Pacific Southwest), but very weak in the Southwest and Mountain regions. The lowest per capita spending levels for both the region and the whole United States in 1986 were seen in Louisiana (78¢).

Spending was weakest in the Midwest, where local economies were flattened in 1986 by the farm crisis and that year's weakness in the manufacturing sector. Per capita spending was weakest in Ohio (83¢), Indiana ($1.16), and Minnesota ($1.02).

State library aid in 1988

A great deal of this regional variation will be ironed out in 1988 and 1989 by a shift in relative regional performance. Largely as a result of the decline in the value of the dollar, areas with manufacturing-based economies—sections of the Midwest, Mid-Atlantic, South Atlantic, and East South Central (Kentucky, Tennessee, Alabama, and Mississippi)—will see the strongest employment growth and the healthiest increases in consumer and business spending.

Conversely, growth in the service-oriented regions—New England, parts of the Mid-Atlantic, South Atlantic, and Pacific Southwest—will weaken in 1988 as spot labor shortages, financial market instability, overbuilding of commercial structures, and deepening service-sector consolidation dampen the expansion.

Economic performance in the remaining regions will be mixed. Renewed strength in agriculture has boosted the economies of the farm states. Rising prices for farm products and land, as well as very strong demand worldwide for beef and grains should make 1988 the best year for farmers in over a decade.

In the oil states, a recent escalation in drilling activity has spurred sales of oil field equipment and other energy-related goods, but any downward pressure on oil prices would quickly reverse this trend. The rate of economic recovery in the Southwest will vary with the concentration of direct energy-related employment in the area, and future growth depends on the prosperity of high-tech industries and on the stabilization of local finances.

Looking at state library expenditures relative to total state spending levels gives and indication of the priority placed on libraries relative to other state programs. By this measure, spending is again strongest in Alaska, Hawaii, and in the Northeast region, where states spent an average of $1.76 on libraries for every $1000 of total state expenditures. New York leads the country in this category, spending $2.14. The West was the weakest, as Colorado, New Mexico, Oregon, and California brought down the average.

Rising costs and salaries

The continued strength of the economy means that libraries' operating costs are likely to rise more quickly in 1988 and 1989. Salaries and wages, which make up the biggest chunk of the average library's total expenses, are likely to rise a little more slowly than they have in the past few years, but price increases for library materials will continue to accelerate.

Average starting salaries for professional librarians will continue to rise at their established rate of five to six percent per year. Increases are likely to be stronger in specialties for which demand is very high, including children's and young adult librarians and those with backgrounds in technical services. In large metropolitan areas, demand is higher both for people with liberal arts skills and for those with a library background.

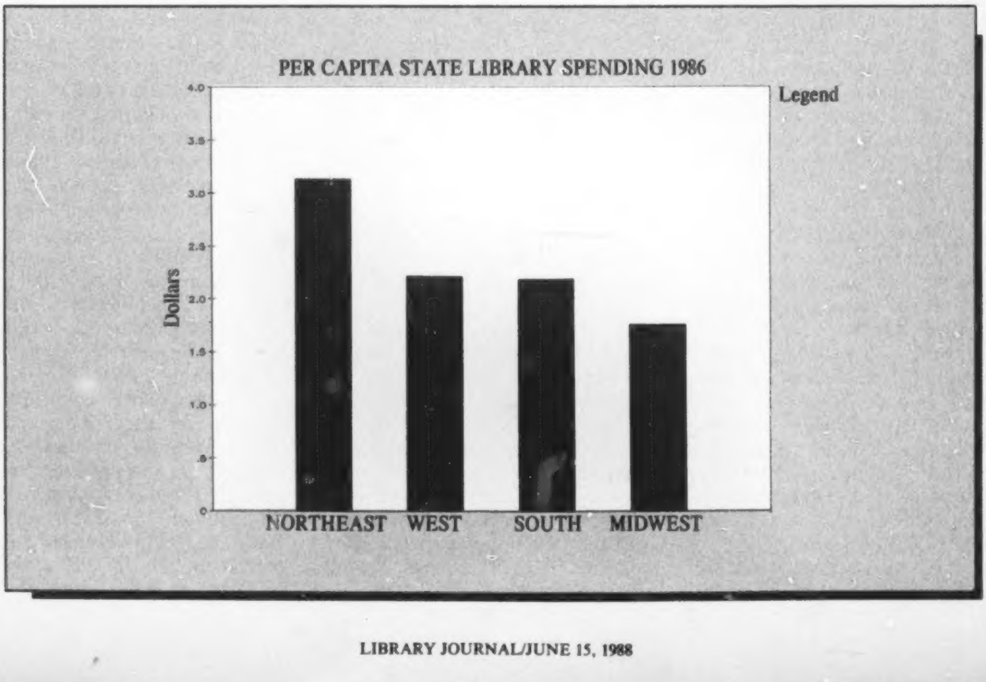
Growth in wages and salaries for nonprofessional staff members is likely to be slower in the next two years than it has been in the recent past, except in areas where technical and clerical workers are in extremely short supply. The slowing of growth and productivity in the service sector will cause average wages for white collar workers to rise by about three percent in the next two years, after posting gains of 4.4 percent in 1986 and 3.5 percent in 1987. Employment costs will rise most quickly in the Northeast, where the labor market has been stretched thin by a decade of strong employment growth and slow increase in the teenage population, and in the Midwest, where the manufacturing industries are rebounding.

Materials costs: higher faster

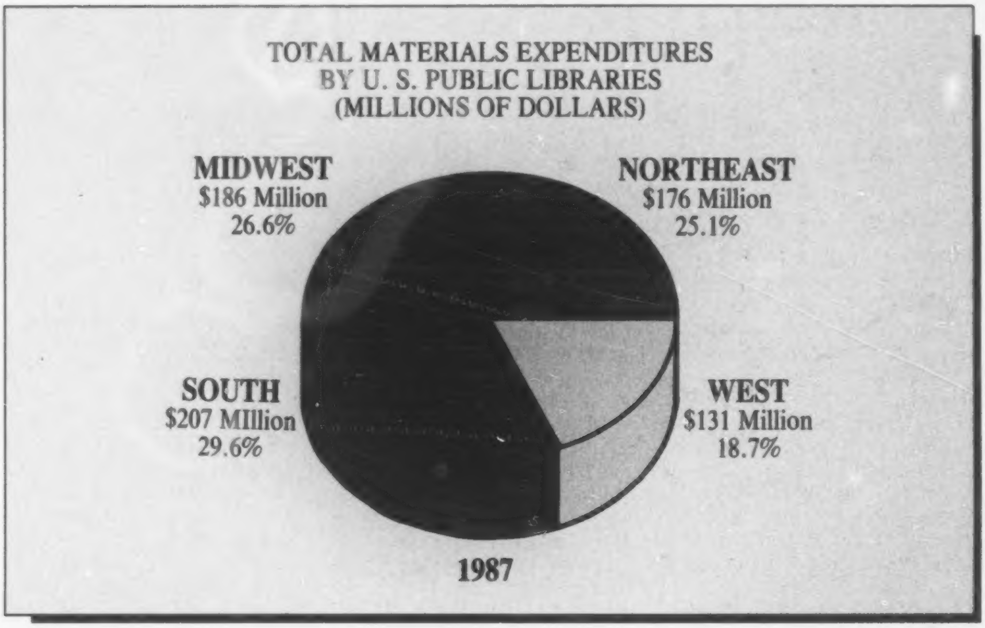
Prices for library materials have risen sharply in the past few years, and have in many cases outstripped the increases in materials budgets intended to cover inflation. The Consumer Price Index (CPI), which many libraries use in their budget requests as an indication of general inflation, has risen very slowly in the past two years thanks to a weakness in food and energy prices.

Materials expenditures by public libraries totaled just under $696 million in 1987, according to survey data compiled for the 1987 edition of the *American Library Directory* (Figure 3). Spending was up 9.7 percent from the 1986 level of $624 million. Almost one-third of this money—$207 million—was spent by public libraries in

"The administration also proposes that federal aid to state and local governments for libraries be reduced . . . in FY 1989"



> *"The rate of economic recovery in the Southwest will vary with the concentration of direct energy-related employment"*


TOTAL MATERIALS EXPENDITURES BY U. S. PUBLIC LIBRARIES (MILLIONS OF DOLLARS)

the Southern region which encompasses only 19 percent of the nation's public libraries. Expenditures by Midwestern and Northeastern libraries, with totals of $186 million and $176 million respectively, made up another one quarter of the total each. Spending by Western libraries trailed with a total of $131 million. On a per capita basis, however, the pattern is much more familiar. Materials spending is highest in the Northeast ($3.52 per person) and Midwest ($3.14), and much lower in the South ($2.49) and West ($2.68).

Periodical and book price increases

Publishers' prices for most types of books rose more quickly in 1987 than they had in the previous five years, according to data from the Department of Labor's Bureau of Labor Statistics. After rising 4.6 percent in 1985 and 4.8 percent in 1986, prices for all books rose a stronger five percent last year. Children's books showed the sharpest increases in 1987, jumping ten percent, after averaging only 4.5 percent during the 1982–1987 period.

Price increases for adult trade paperbacks, religious books, and mass market paperbacks all accelerated in 1987. Prices for textbooks and technical, scientific, and professional books moderated in 1987. In 1987, public libraries spent $504.7 million or 72.5 percent of their acquisitions budgets for books (Table A).

Publishers' prices for domestic periodicals rose 4.2 percent in 1987, but the average rate of increase in the past five years was twice as fast. In the first quarter of 1988, prices rose another 3.8 percent, indicating that prices have resumed a stronger upward trend.

Foreign subscription prices have risen even faster as a result of the falling dollar. While the response of many librarians has been to cancel subscriptions, most are devoting a higher proportion of their acquisitions budgets to periodicals. In 1987, public library spending for periodicals totaled an estimated $76 million, or about 11 percent of total materials expenditures. This is up 17.9 percent from the 1986 figure of $65 million, which represented only 10.4 percent of total expenditures.

Rising manufacturing costs, which were chiefly responsible for the increases in publishers' prices last year, are expected to accelerate this year. First, the lower value of the dollar has boosted the cost U.S. publishers must bear to have their books produced overseas. Offshore production, with the strong dollar and lower foreign labor rates, had been undertaken in order to reduce costs. Second, paper prices have risen sharply in the past year, as demand from the packaging sector as well as the publishing industry has exhausted current supply.

In general, library budgets and costs will continue to grow apace, with relatively good news for salaried and wage-earning library workers. But those who buy materials for libraries (particularly foreign journals) will have to be more selective as increasing costs of paper, manufacturing, and the dollar exchange drive book and magazine prices higher. The economic outlook for libraries in FY 1988–89 is grounds for guarded optimism, and a sigh of relief that ups and downs on Wall Street had less impact than expected on the rest of the country and on public revenues and budgets.

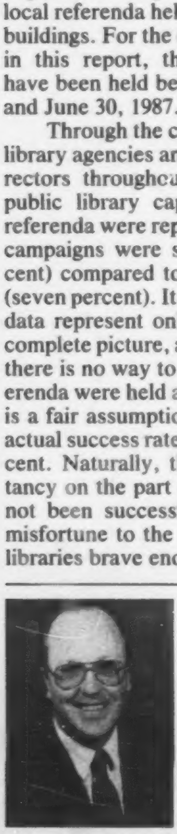
New data on library referenda for capital improvement projects indicate that libraries are a big hit with voters

Referenda for Public Library Buildings 1987

By Richard B. Hall

IN REVIEWING the literature regarding the use of the public referenda to finance public library buildings, it soon becomes obvious that there has never been a serious attempt to document the activity annually or to systematically compare campaigns and analyze the reasons for success or failure. In an attempt to fill this void, *LJ* and the author began an attempt to collect data on local referenda held for public library buildings. For the data to be included in this report, the referenda must have been held between July 1, 1986 and June 30, 1987.

Through the cooperation of state library agencies and public library directors throughout the country, 54 public library capital improvement referenda were reported. Of these, 50 campaigns were successful (93 percent) compared to only four defeats (seven percent). It is obvious that this data represent only a sample of the complete picture, and, unfortunately, there is no way to tell how many referenda were held and not reported. It is a fair assumption to state that the actual success rate is less than 90 percent. Naturally, there is some hesitancy on the part of those who have not been successful to report their misfortune to the world. Those four libraries brave enough to report their loss can provide the profession with some valuable lessons.



Richard B. Hall is *Library Building* Consultant, State Library of Georgia, Atlanta

Some initial findings

The results of the data collection are interesting when viewed together as well as separately. While there are many temptations to draw conclusions from the results, it is very risky to make statements based on only one year's data. With this disclaimer in mind, an attempt will be made to uncover generalities in the results, but definite conclusions and trends will have to wait until more data is collected and analyzed over several years.

One of the most interesting findings emerges when the 1987 data are averaged and the percentages of votes for and against all the referenda are compared. Nationally, on average, the figures show a better than two to one percentage in favor of passage of all the referenda. This is an extremely encouraging development for those libraries considering a capital improvement referendum. However, this very positive prospect for success must be tempered with the realization that every year is a new year and that each referendum must be fought and won on the merits of the individual situation.

It is important to note that of the approximately $242 million reported as attempted, $224 million of capital improvements for public libraries were approved in local referenda by the voters. The five largest referenda (Columbus, Ohio; Decatur, Ga.; West Palm Beach, Fla.; Baton Rouge, La; New Port Richey, Fla.) raised $116 million, accounting for over 50 percent of the $224 million. As these funds begin to appear in the *LJ* architectural issue construction statistics, it is likely that the recent trend toward increased local funding for new buildings will continue.

The type of referenda

It is no surprise that the majority of the referenda held for public library capital improvements were to be financed with city and county general obligation (GO) bonds. A closer analysis of the data reveals some interesting facts. The agencies authorizing the referenda fell into the following categories and percentages:

city—40 percent
county—26 percent
school district—17 percent
"town"—15 percent
parish—two percent

Surprisingly, municipalities authorized 40 percent of the referenda. If the New England "towns" are included, the rate rises to 55 percent. A higher authorization rate by county governments was anticipated. It is interesting to note that school districts were the authorizing agencies as often as they were.

Bond issues were the most popular type of referendum. Eighty percent of the referenda fell into this category with the remainder being distributed among approaches such as sales taxes, property tax millage rate increases, and even mortgages. Of the referenda that resulted in bond issues, 95 percent were for GO bonds with the remainder using either revenue or serial bonds.

The effect of other items being on the same ballot with a library building has always been a controversial issue. Of the referenda held in 1987, two-thirds had other items such as water, sewer, streets, schools, etc., on the same ballot. The success rate of those on the ballot alone was 95 percent, while the success rate for those with competing items on the ballot was 92 percent. Many would have predicted the higher success rate for those referenda without competing ballot items, but few would have thought the difference would be as little as three percent.

Slightly over two-thirds of the referenda were held during a regularly scheduled general election, with the remaining one-third held as special referenda. Of those held during general elections, 92 percent were successful. Referenda held during special elections had a slightly higher success rate of 94 percent. Again, the similarity is surprising. While the difference between the success rates of general and special elections bears observation in upcoming years, it would be premature to draw any conclusions at this time.

There has often been speculation regarding which month of the year is best to hold a library referendum. Since this sample is so small, the current data demonstrates little to answer this question definitively, but it does indicate a preference toward spring and fall. Those scheduled between March and July had an 87 percent success rate, while 97 percent of the referenda scheduled from September to January were successful.

Campaign methods

In reporting their data, library directors were asked to quantify "the relative importance to your campaign" of various specific campaign methods. A scale from one to ten was used, with ten indicating the most important and one the least. Table 3 shows, in priority order, the average response for all 54 library referenda to each campaign method.

The most commonly used campaign method was the creation and distribution of pamphlets and fact sheets. Explaining the library's position on the issue is a simple, effective, and relatively inexpensive way to communicate with the voters. Judging from the samples sent, professional graphic layout services were often used to create a favorable impression of the library. Exterior elevations and floor plans of the proposed new building highlighting new or improved services were often presented as well. The project budget with the resulting cost per household, or a similar comparison, was frequently included along with varying justifications of the need for the improvements.

Of the three main media, the use of print was by far the most frequent. The use of feature articles and even an occasional advertisement was frequently employed to "sell the library's story." A feature article in the Sunday paper on the eve of the referendum was a highly desirable tool that worked as a last-minute appeal to bring out supporters to vote. Press releases were also considered important and were often used to dispel inaccurate information, rebut false rumors about the referendum, or highlight an important event in the campaign, e.g., an endorsement. Further, letters to the editor or editorials were often used to discuss the need for a new or improved building.

Endorsements by influential community leaders were considered to be effective in influencing voters, as was the activity of making presentations before local community groups. Getting to these community leaders and obtaining their approval of the campaign was perceived as very significant for improving the chances of success. Further, the participation of a library Friends group in numerous activities was considered essential in many cases. The Friends group can be a very effective way of organizing volunteer activities: telephone contact of library users and registered voters; mass mailings; participation in public forums explaining the library's point of view.

It should be pointed out that many of the methods in the less frequently used categories in Table 3 are also some of the more expensive ones: producing TV and radio spots; getting air time unless public service announcements can be arranged; hiring a public relations consultant; or contracting for a prevote poll or survey of voters. In spite of the cost and the overall low ranking, these methods were considered very important in several campaigns.

For example, the use of a preliminary poll can actually be a very cost-effective tool to "test the waters" before committing to the expense of a full-fledged campaign. This approach was used effectively in the Marietta, Georgia campaign where a voter survey was instrumental in building confidence with local officials regarding the chance of success. In communities where funding agencies or even library boards need some convincing in order to get the library issue on the ballot, this approach may prove invaluable.

It is surprising that the participation of the Chamber of Commerce and private business in general was as low in importance as it was. It is possible that these agencies were felt to have been addressed through public forums and presentations to community groups, but, surprisingly, the involvement of the private sector was not perceived to be of great importance in most cases. In those instances where it was important, it is likely that there were private fundraising campaigns in progress as well to supplement the public referenda.

Why success, why failure?

A part of the data collection form asked library directors to "assess the relative significance of various items to the success or failure of the referendum." Table 4 shows, in priority order, the average of all of the responses.

The most commonly cited reason given for the result of the referendum was the need for the new or improved building. It is encouraging to know that when the need is there and obvious to all, the desired result will frequently follow. This, of course, assumes that the need has been effectively explained and that there is not another overriding consideration or conflict that disrupts the process.

It is also encouraging to see that the quality of previous library service is perceived as an important factor in determining the result of the referendum. This demonstrates that working hard to satisfy consumers will be rewarded by a public mandate for improved physical facilities. This result certainly provides an incentive to library staff and management to do as good a job of providing quality service as possible regardless of the existing conditions.

Another important factor in determining the outcome of the referendum was the effect of the public relations efforts on behalf of the library. Obviously, it was perceived that all of the public relations–related campaign methods used—pamphlets, fact sheets, newspaper copy, press releases, etc.—were effective in influencing the final vote. There is much that a library can do for its own campaign if management is willing to allocate the time and energy required to create professional-quality products.

Library administrators who planned campaign strategies effectively, organized their people, and used their links with the community at large through a Friends group and the Board of Trustees found that success was within their grasp. The use of endorsements by community leaders was also perceived to be an important way of reaching the voters.

It is interesting to note that the educational level of the community was perceived to be of greater importance than the socioeconomic level or even the economic climate at the time of the referendum. If the significance of the educational level of a commu-

Table 1

Referenda for Public Library Buildings 1987

Community	Library	Vote		Amount of Referendum	General Special	Other Ballot Items
		For	Against			
ARIZONA						
Glendale	Glendale PL	56%	44%	$9,698,000	S	Y
COLORADO						
Steamboat Springs	Bud Werner Memorial Lib.	67	33	575,000	S	N
CONNECTICUT						
Anonymous	Anonymous	86	14	350,000	S	N
Harwinton	T.A. Hungerford Memorial Lib.	51	49	855,000	S	Y
FLORIDA						
New Port Richey	Pasco County Lib.	52	48	10,000,000	G	Y
West Palm Beach	Palm Beach County Lib.	67	33	20,000,000	G	Y
GEORGIA						
Decatur	DeKalb County PL	67	33	29,000,000	G	Y
Marietta	Cobb County PL	71	29	7,160,000	G	Y
Sparta	Hancock County PL	99	1	735,000	S	N
ILLINOIS						
Palos Heights	Palos Heights PL	54	46	639,000	G	Y
St. Charles	St. Charles PL	68	32	2,925,000	G	Y
Taylorville	Taylorville PL	55	45	300,000	G	Y
LOUISIANA						
Baton Rouge	East Baton Rouge Parish Lib.	67	33	12,000,000	G	Y
* Natchitoches	Natchitoches Parish Lib.	38	62	6,280,000	G	Y
New Orleans	New Orleans PL	68	32	1,600,000	S	Y
MARYLAND						
Hyattsville	Prince George's Cty. Mem. Lib.	8	18	3,600,000	G	Y
Towson	Baltimore County PL	7	29	500,000	G	Y
MASSACHUSETTS						
Eastham	Eastham PL	97	3	663,665	G	Y
Lincoln	Lincoln PL	95	5	2,250,000	S	Y
Littleton	Rueben Hoar Lib.	75	25	1,200,000	S	Y
* Plymouth	Plymouth PL	49	51	9,725,000	G	Y
Southborough	Southborough Lib.	62	38	1,300,000	S	N
Sterling	Conant PL	82	18	890,000	G	N
Wayland	Wayland PL	100	0	200,000	G	Y
West Newbury	G.A.R. Memorial Lib.	93	7	850,000	G	Y
Westford	J.V. Fletcher Lib.	80	20	2,280,000	G	Y
MINNESOTA						
Forest Lake	Forest Lake PL	59	41	298,000	G	Y
NEW YORK						
Brentwood	Brentwood PL	76	24	7,980,000	S	N
Center Moriches	Center Moriches Free PL	54	46	1,800,000	S	N
Eden	Eden Free Lib.	100	0	250,000	G	N
Marlboro	Marlboro Free Lib.	80	20	249,000	S	N
Middle Island	Longwood PL	87	13	3,900,000	G	Y
Montauk	Montauk Lib.	65	35	985,000	S	N
Spring Valley	Finkelstein Memorial Lib.	73	27	3,000,000	S	N
Yorktown	John C. Hart Memorial Lib.	81	19	2,000,000	S	N
NORTH CAROLINA						
Chapel Hill	Chapel Hill PL	77	23	4,000,000	G	Y
NORTH DAKOTA						
Bismarck	Bismarck Veterans Memorial PL	73	27	3,400,000	G	Y
OHIO						
* Anonymous	Anonymous	35	65	1,200,000	G	Y
Berea	Cuyahoga County PL	67	33	1,500,000	G	N
Columbus	Grandview Heights PL	66	34	4,460,000	G	Y
Columbus	PL of Columbus & Franklin Cty.	53	47	45,000,000	G	Y
Fremont	Birchard PL of Sandusky Cty.	56	44	3,600,000	G	N
Lebanon	Lebanon PL	65	35	1,350,000	G	N
Parma Heights	Cuyahoga County PL	57	43	1,000,000	G	N
Waynesville	Mary L. Cook PL	52	48	550,000	G	Y

Table 1 (continued):
Referenda for Public Library Buildings 1987

Community	Library	Vote		Amount of Referendum	General Special	Other Ballot Items
		For	Against			
OREGON						
North Bend	North Bend PL	67%	33%	$1,650,000	G	Y
Portland	Multnomah County Lib.	60	40	5,890,000	G	Y
West Linn	West Linn PL	64	36	1,200,000	G	Y
Wilsonville	Wilsonville PL	56	44	2,250,000	S	Y
RHODE ISLAND						
South Kingstown	South Kingstown PL	73	27	750,000	G	Y
SOUTH CAROLINA						
Charleston	Charleston County Lib.	76	24	15,465,234	G	N
TEXAS						
* Universal City	Universal City Lib.	29	71	750,000	S	N
WASHINGTON						
Cheney	Cheney Community Lib.	79	21	275,000	G	Y
TOTALS		**69%**	**31%**	**$241,927,899**	**S 31%** **G 69%**	**Y 67%** **N 33%**

* Referenda that failed

nity continues to maintain prominence over other factors in future years as more data is collected, it will have an important impact on planning campaign strategy for future referenda. It should be acknowledged that this year's data was collected during a period of relative prosperity, and, as a result, the importance of the economic climate and the socioeconomic level of the community may take on greater importance in future years if there is economic decline.

Just in time

It is difficult to say what went into the consideration of when the right time to hold the referendum was, but the presumption is that the date for the referendum should be carefully chosen by those informed about the political and economic climate of the community. With this in mind, the library administrator must be aware that the political pundits in some communities may never think that the time is right for the library issue. If this is the case, the library board may have to try to assess their chances on their own and commit to a campaign on the basis of their own knowledge of their constituency.

It is important to present the building's design, cost, and location in a favorable light with a minimum of controversy. Obviously, if the voters feel that the building is one that they, as a community, will feel proud of and one that is not overly expensive or located on an objectionable site, the chances for success are greatly improved. If any one of these items regarding the building project is poorly handled, it alone can mean the defeat of the campaign.

A taxing situation

Several surprises come from the remaining categories. The first is the issue of increased taxation, which traditionally is used by opponents as the main reason not to finance new capital improvements. While not showing as significant in the referenda that passed, it consistently scored in the highest category for the four referenda that failed.

Few taxpayers are excited about seeing their tax bills increase, but if they perceive that the tax increase is not really needed, or that previous funds have been wasted, then the chances of getting a positive result at the polls is significantly diminished. On the other hand, if the need is well justified and the issue touches the taxpayer directly so that they can see some personal benefit in the expenditure, then the chances for success are greatly improved. Obviously, timing with respect to this issue is critical. Referenda put before the voters just after an increase in taxes due to a property reappraisal or operating budget deficit are at a disadvantage at the outset.

Given the potential dire consequences, this issue of taxation must be thoughtfully addressed before and during the campaign. In particular, there must be careful consideration on the part of library administrators and boards who live in communities where this issue is paramount in the minds of voters. To misjudge the relevance of increased taxation in these communities is a guaranteed prescription for failure no matter how much the library needs a new facility or how sophisticated the campaign methods.

Table 2
Referenda Pass/Fail Ratio by Month

Month	Passed	Failed
January	1	0
February	0	0
March	5	0
April	2	1
May	8	1
June	4	1
July	1	0
August	0	0
September	2	0
October	2	0
November	21	1
December	4	0
Total	**50**	**4**

Another surprise in the rankings was that organized opposition scored dead last overall. There usually is not a large number of people in the community who feel so negative toward the library or its capital improvement needs to work to defeat a referendum. But a word of caution: this category was rated very high as a reason for failure by three out of four library directors reporting unsuccessful referenda. It should be recognized that the most prevalent opposition groups are frequently those opposed to tax increases. If a campaign does face well-organized opposition, the chances of success are lower, and a good portion of the campaign strategy sessions will need to be directed toward trying to defuse, circumvent, or overcome the opposition.

Table 4
Significance for Success/Failure of Campaign

Item	Avg. Ranking
Need for new/improved buildings	8.86
Quality of library service in the past	7.87
Public relations efforts	7.86
Activity of Friends group/library board	7.02
Campaign organization efforts	6.80
Educational level of community	6.50
Endorsements by community leaders	6.32
Timing of vote	6.29
Socioeconomic level of community	5.96
Economic climate	5.89
Building design, cost of location	5.65
Increase in taxation	3.74
Involvement of the business community	2.91
Competing item on ballot	2.50
Organized opposition	1.99

Old-fashioned competition

Contrary to popular belief, competing items on the ballot were not perceived by most library directors to be a great detriment to the chances of success. However, of those library directors reporting unsuccessful referenda, half thought competing items on the ballot were of little importance and half thought that they were a significant factor. The jury is still out on this until more data can be collected, but in the case of one campaign, it was strongly felt that if there had not been any competition, the library would have won instead of having been narrowly defeated. A similiar situation was found regarding the importance of the involvement of the business community. In most campaigns, the involvement of the business community was not considered to be very important, but in two out of four that failed, it was considered significant.

Categories that most library directors did not find very significant to their campaigns still contain pitfalls that must be carefully avoided if success is to be assured. Nothing can be taken for granted—the price of success is constant vigilance. No factor, no matter how small or seemingly unimportant, can be left to chance without running the risk of failure.

Table 3
Ranked Importance of Campaign Methods

Campaign Method	Avg. Ranking
Pamphlets, fact sheets, bookmarks, etc.	8.35
Newpaper ads, feature articles	7.30
Endorsements by community leaders	7.07
Press releases	6.78
Community group presentations	6.33
Letters to the editor, editorials	6.15
Library Friends group	6.04
Volunteers' telephone contact	5.05
Public forums	4.61
AV (slide or videotape) presentations	3.00
Use of previous precinct voting records	2.99
Radio spots	2.98
Chamber of commerce participation	2.43
Yard signs	2.28
Organized door to door contact	2.24
Private business participation	2.24
Television spots	1.59
Public relations firm or consultant	1.12
Pre-vote poll of registered voters	.98

Pertinent commentary

Several items were mentioned in the "comments" section of the data form. Some library directors felt that these items were significant, at least for their campaigns. The first is the positive impact that potential matching state or federal funds had or would have had if they were available. Several library directors viewed this as an important stimulus and potential reason for improving the chances for the success of their referendum. In addition, numerous directors commented that the success of their campaign was the result of many years of groundwork by many dedicated people, implying that their success was not something that had happened overnight.

It must be stated that while the effort to pass a referendum is no small one, the chances of success are encouraging. The positive results of this year's data are in keeping with the findings of Herbert Goldhor, recently retired director of the Library Research Center of the University of Illinois. Goldhor reported that over two-thirds of the library bond issues held in Illinois from 1980–85 were successful. This figure is further supported in his unpublished national survey of *Public Library Referenda in 1985*, which indicated that approximately two-thirds of all local bond issues held in 1985 were successful in the states participating in the survey.

Based on these results and this year's data, it is hoped that library administrators and boards of trustees who have seen the degree of success reported by many of their counterparts will be encouraged to attempt capital improvement campaigns in their own communities.

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Getting published in library literature

Publication in Library & Information Science:

The State of the Literature

By John Budd

SEVERAL YEARS AGO Daniel O'Connor and Phyllis Van Orden began their paper, "Getting into Print," with the following statement: "Rampant criticism on the quality of library literature is so pervasive that we could be fearful that Katz's *Best of 1978* might contain only one or two articles."[1] It can be safely said that the members of the profession have not ceased the spectator sport of literature-bashing. It can also be safely said that such a phenomenon is not unique to library and information science.

The question of the quality of the literature seems to be dependent, to a considerable extent, on the motivational factors that drive people to write and publish. The factors at work may be based on need or desire. Robert Stueart investigated motivation and arrived at some elemental questions that can help define the climate to publish.

1. Do you want to publish? Is your idea something that has not been covered in the literature before?

2. Do you have to publish in order to advance professionally?

3. Are you anxious to relate the results of research performed in a scientific manner?

4. Do you have a real commitment to writing, and have you made the distinction between scholarly research and "how to do it" articles? There is a place for both in the literature.[2]

John Budd is Assistant Professor, Graduate Library School, University of Arizona, Tucson

The distinction Stueart speaks of in his last element is an important one. At present the literature reflects that some of its members are concerned primarily with practice, while others are seeking a scholarly base. The distinction presents the possibilities for argument about what the literature *should* be, but discussion must be preceded by the current state of publishing practice.

Publishing as communication

It is widely recognized that the ideal purpose of publishing is communication of ideas, research, opinion, and scholarship. A primary means of scholarly communication in virtually all disciplines (and certainly in library and information science) is the journal. The journal offers authors and readers some advantages over the monograph: the opportunity for dissemination of a larger number and broader scope of issues and questions; intensive study of very specific questions or aspects of large problems; and the timely publication of intended communication (though this last item may be a disputed point on both sides of the editorial fence).

How efficient is the network of journal literature in library and information science? Specifically, how well does this network serve prospective authors? O'Connor and Van Orden paid particular attention to these kinds of questions in their paper, seeking such information as acceptance rates of journals, publication delays, and means of reaching publication decisions. At the time they wrote their paper they recognized the pressure on individuals to publish, a factor that may be separate and apart from the desire to communicate with colleagues.[3] This pressure likely has not dissipated in the intervening years between their study and the present one. Publication is a criterion for advancement in many environments. It is hoped that these essentially external pressures do not adversely affect the quality of published works, that editors, in the course of exercising the "gatekeeper" function observed by Janice M. Beyer,[4] exert a strong controlling influence on quality.

The data

O'Connor and Van Orden presented data on 33 journals in library and information science.[5] The current study presents data on 48 journals. A total of 53 journals were surveyed, for a return rate of 90.6 percent. The criteria for inclusion in the study are essentially the same as those established by O'Connor and Van Orden: journals published in the United States and Canada; journals with a national audience; journals that accept or are open to consider unsolicited submissions; and journals that publish formal communication (that is, those that do not publish exclusively internal or agency news or brief informal exchanges).

These criteria exclude a number of publications. For instance, because of its policy of soliciting manuscripts, *Library Trends*, whose issues focus on specific themes, does not fall within the scope of this study. The journals represented by data presented here vary considerably in subscription size, subject matter, and means of support (association organs, institutional subsidies, etc.).

In order to ascertain the information that would be of interest and importance to authors in search of journals (and this information is the kind previously sought by O'Connor and

Van Orden), questionnaires were sent to the editors of the identified journals. Considerations regarding acceptance of submissions and the rate of unsolicited manuscripts published are presented in Table 1.

It is evident from the data in Table 1 that it is not a simple matter to calculate an overall acceptance rate for articles submitted to library and information science journals. A number of editors provide inexact information, usually in the form of range of submitted and accepted papers. Using these ranges, it appears that the acceptance rate for unsolicited papers is from 30.5 percent to 38.4 percent. A more precise estimate cannot be arrived at. This range is a bit more favorable (from the author's viewpoint) than the 22.7 percent rate observed by O'Connor and Van Orden.[6]

How many mss. are rejected?

The data in the present study show that approximately 60 to 70 percent of manuscripts are rejected. O'Connor and Van Orden expressed surprise at the high rejection rate of 77.3 percent when compared to other disciplines.[7] This rate may seem high in comparison to the sciences, but appears to be in line with the social sciences and humanities. A. Carolyn Miller and Sharon L. Serzan surveyed a number of journals in several disciplines and their data support the above contention. They noted lower rejection rates for the following fields: medical and health science (52 percent); engineering, allied sciences, and mathematics (47 percent); life sciences (41 percent); and earth, environmental, and physical sciences (35 percent).[8]

Some areas of the humanities and social sciences, on the other hand, were victim to higher rejection rates: history, area studies, political science, religion, and philosophy (62 percent); general and fine arts (65 percent); psychology and psychiatry (69 percent); education and communications (70 percent); professional studies (including library science, 74 percent); language, literature, and linguistics (74 percent); and business, economics, finance, management, and personnel (79 percent).[9] Other research has uncovered rejection rates of 88 percent for the humanities[10] and 85 percent for American history.[11] In light of these findings, the rejection for library and information science is neither surprising nor extraordinary.

What does the rejection rate indicated by available data signify for library and information science literature with respect to the literatures of other disciplines? Beyer examines publication decisions based on universalistic (consideration of merit and quality) or particularistic (personal preference, background of author, etc.) criteria.[12] She finds that in disciplines with high paradigm development,[13] such phenomena as low rejection rates reflect the universalistic judgment practices at work. While attempts are made in the social sciences to lessen the possible existence and impact of particularism (including anonymous refereeing and multiple referees), some particularistic elements persist, according to Beyer.[14]

Beyer's findings have implications for communication in many fields, including library and information science. Higher rejection rates, publication delays, longer articles (relative to the sciences) signify possible discouragement to research, impediments to communication. Beyer says, "It is difficult to see how such results can be beneficial to the development of a science."[15] Beyer's research should be examined further for its implications for the nature of literature in the social sciences and the relevance of comparison with the sciences.

The unsolicited piece

The last column of Table 1 reports the percentage of published articles that come from unsolicited manuscripts. As with the study conducted by O'Connor and Van Orden, the figures represent editors' estimates. They also represent considerable variation from journal to journal. O'Connor and Van Orden state that 68.1 percent of the articles published in 1975 (in reporting journals) came from unsolicited manuscripts.[16] Such a calculation from available data is difficult because of estimates. One notes that, in the past two years, "six unsolicited manuscripts have been received" and doubts that the number will increase. Other editors offer the following comments:

> [A couple of years ago] submissions were minimal. In the past two years this has changed dramatically with many good papers coming in unsolicited.

> Most of my papers are directly requested from people who have been recommended to [me] by colleagues or whom I know personally. Unsolicited papers are the exception, but they are always welcome.

> It seems to me that not enough publishable articles are received by editors. Perhaps librarians do not have time to write . . . . [W]e were running out of items to be published and, at times, we received manuscripts which had to be totally rewritten.

These comments lead to the supposition that, while the rates of unsolicited manuscripts published are not high for some jounals, editors may be more amenable to consideration of such submissions than figures suggest. This is not a universal phenomenon, which comes as no surprise. Further comments by editors point to the occurrences of unsolicited papers being the exception rather than the rule.

> Most of the material . . . is requested from qualified authors. Unsolicited mss. are considered only within the theme of the issue.

> Although many of the articles we receive are technically unsolicited, the people who write them tend to be turned into a "network" of librarians.

One of the responding editors makes some general comments about the fluctuating marketplace of the literature.

> We have . . . noted the field itself goes through phases of relatively high productivity and the reverse. I have yet to discover what dictates this pattern, but I suspect it relates to the following: number of faculty and higher library positions open, general availability of tenure track advancement, the professional agenda at any given time (whether or not there are major issues under debate), and the availability of funds that spark innovations, experiments, and new directions in the practice and service of libraries.

The above factors can certainly affect the number of manuscripts available for editors' consideration. Another factor, mentioned earlier, is the increase in the number of journals. Examination of some comparable data provides possible insights into the current state of the literature. Of 20 journals whose rates of published articles coming from unsolicited manuscripts can be compared between the earlier study and this one, 11 are lower, eight are higher, and one is the same. Of 17 journals whose acceptance rates can be compared, 14 are higher and three are lower.

These comparisons seem to indicate that the number of acceptable manuscripts has not kept pace with the rising number of journals. This is borne out by one more comparison: the total number of unsolicited manuscripts received by 15 journals in the O'Connor and Van Orden study is 1210; the total for the same 15 jour-

Table 1
Journal Data and Openness to Unsolicited Manuscripts

Title	No. of subscriptions	No. of unsolicited manuscripts submitted	No. of unsolicited manuscripts accepted	% of unsolicited manuscripts accepted	% of articles pub. annually which come from unsolicited manuscripts
American Archivist	4,000	—	—	—	—
American Libraries	47,000	150-200	15-20	8-13	50
Behavioral & Social Sciences Librarian	450	—	—	—	—
Bulletin of the American Society for Information Science	4,500	12	4	33	8
Canadian Library Journal	5,500	35-70	30	43-86	85
Cataloging & Classification Quarterly	c.1,000	25-30	20	67-80	50-60
Catholic Library World	3,000	c.30	c.10	33	10
Collection Building	1,500	50	20	40	40
Collection Management	c.1,000	8-10	most	—	15-20
College & Research Libraries	13,600	100	35	35	75
Community & Junior College Libraries	400	25-30	25	83-100	5-10
Government Publications Review	1,000	20	12	60	33
Horn Book	19,000	varies	c.10	—	varies
Information Processing & Management	1,071	85	25	29	15
Information Technology & Libraries	6,800	75-100	—	c.60	c.80
Journal of Academic Librarianship	2,500	100-150	20-30	13-30	98
Journal of Education for Library and Information Science	1,800	45-55	16-20	29-44	95
Journal of Library History	808	45	16	36	90
Journal of the American Society for the Information Science	4,000	75	50	67	80
Journal of Youth Services in Libraries	36,000	50-60	15-30	25-60	30-50
Law Library Journal	4,200	50	30	60	—
Legal Reference Services Quarterly	800	60-75	40-50	53-83	80
Library & Archival Security	c.1,000	6-10	3-5	30-83	10
Library & Information Science Research	475	30-40	12-16	30-53	c.75
Library Hi-Tech	10,200	100-150	8-12	5-12	15-25
Library Journal	27,000	—	—	—	—
Library Quarterly	c.3,900	c.54	c.13	24	100
Library Resources and Technical Services	c.9,500	41	13	32	41
Medical Library Association Bulletin	c.6,000	c.90	c.40	44	90
Medical Reference Services Quarterly	c.800	12	5	42	25
Microform Review	1,400-1,500	3	3	100	15
Notes	3,600	—	—	—	—
Online	5,500	c.60	c.20	33	c.20
Online Review	—	c.25	c.18	72	—
Public Libraries	c.6,000	c.40	c.8	20	20
Public Library Quarterly	10,000	30	20	67	75
Reference Librarian	1,500	2-3	1-2	33-100	1-2
RSR: Reference Services Review	—	10-20	10-15	50-100	45
Research Strategies	800	75	24	32	90
Resource Sharing & Information Networks	—	10-15	—	c.90	50
RQ	6,404	58	18	31	86
School Library Journal	42,000	300	30	10	10
School Library Media Quarterly	7,000	35	12-15	38-43	80
Science & Technology Libraries	c.800	5-10	4-5	40-100	15
Serials Librarian	c.2,000	6-10	3-5	30-83	10
Special Libraries	12,500	25	12-13	48-52	15
Technical Services Quarterly	700	15-20	10-15	50-100	50
Voice of Youth Advocates	3,300	—	12-15	—	10

nals in the present study is 1,003. This may prove to be beneficial to authors, but its implications for communication are yet to be seen.

Manuscript review

Since library and information science as a discipline exhibits many of the outward traits of the social sciences, particularly in the area of rejection rate, it should be expected that unsolicited manuscripts undergo a formal review process before a publication decision is made. The question remains as to what types of review are submissions put through. As is noted above, Beyer maintains that a refereeing process is an attempt at applying univeralistic judgment to the selection of publishable papers. O'Connor and Van Orden agree, with an added caveat: "Although refereeing does not guarantee the production of quality manuscripts, is does inject independence and impartiality into the selection process."[17]

How many journals use referees (or readers other than the editor) in determining which papers to publish? Table 2 presents the mechanisms of evaluation used by library and information science journals and the number of readers to whom each manuscript is sent.

If peer review is interpreted with sufficient looseness to include editorial staffs and editorial boards, then the majority of library and information science journals can be seen to employ a peer review process. The problem exists of defining that particular form of peer review—refereeing.

Miller and Serzan provide the strictest and most detailed assessment of what constitutes a refereed journal[18] Ruth Fraley and Barbara Via avoid the issue by simply asking editors if their journals are refereed.[19] The formal use of referees who are not members of staffs or boards has risen considerably in the last decade. O'Connor and Van Orden observed that, "Though there appears to be movement towards refereeing, only six journals employed a full refereeing system."[20] The movement has certainly accelerated; Table 2 illustrates that 20 journals are relying on referees in the evaluative process. (Fifteen use double-blind refereeing.)

It could be that the impetus for such movement has been more external than internal, with university-wide standards affecting those professional staff members with faculty or academic status. Whatever the cause, the use of referees is generally acknowledged to be the most effective system in use. As Stuart Glogoff states, "Practicing a double-blind refereeing process where the author's name is not revealed to the referee as well as the referee remaining anonymous to the author seems the most objective method."[21]

If peer review is considered to be a "good thing," then what characterizes it?; how does it work? John C. Bailar and Kay Patterson observe that:

> Four paradigms seem to capture much current opinion about peer review of scientific works submitted for journal publication: the sieve (peer review screens worthy from unworthy submissions); the switch (a persistent author can eventually get anything published, but peer review determines where); the smithy (papers are pounded into new and better shapes between the hammer of peer review and the anvil of editorial standards); and the shot in the dark (peer review is essentially unpredictable and unreproducible and hence, in effect, random).[22]

Bailar and Patterson conclude that peer review seems to work well and that no feasible alternative presents itself.

One possible drawback to peer review, and specifically to refereeing, is perceived by Michael D. Gordon. Gordon posits that referees can form something of a network that may overlap with a larger network of authors. The possibility exists for less rigor when the sets formed by the networks intersect because of common ground with regard to intellectual bases and/or similarity of institutional environment. Because of this,

> It can therefore be argued that biases systematically operate within refereeing systems in such a way as to give advantage to those elements of a research community which supply the largest proportion of the referees used by the editors of its journals. The papers of such authors may on occasion be less demandingly evaluated than those of authors outside the group.[23]

The implications of this (if it is an occurring phenomenon) are that newness of ideas, innovation of methodology, and divergence of interpretation may be stifled.

Criteria for publication

Assuming an efficient system of conscientious and objective referees, what criteria are used in making decisions to recommend publication? Glogoff surveyed referees for journals in library and information science and offered them six choices of criteria for evaluation. The referees selected the criteria in the following order: validity of claims, originality, clarity, reader appeal, importance of subject to the referee, and manuscript secrecy referee from author.[24]

Robert K. Coe and Irwin Weinstock surveyed managing editors and reviewers (referees) of business journals and found the following five reasons for rejection of manuscripts mentioned most frequently by both groups (though not in the same rank order): does not add significantly to the current body of knowledge, too superficial, inappropriate subject matter, poorly written, and inadequate research.[25] If a synthesis of these findings could be expressed as advice to authors, the conclusion might be to select a significant question, be careful to adopt an appropriate method of study, execute the study thoroughly, and write with clarity.

It may be a tacit assumption among authors and those not involved with the inner workings of the editorial process that referees are working from carefully devised and explicitly stated criteria for evaluation. O'Connor and Van Orden report that "several" editors sent evaluation forms.[26] In the present study only one editor sent an evaluation form. It should be noted that editors were not requested to supply such forms. Glogoff asked referees if some form or other aid was used: 55 responded yes and 55, no.[27] In the study conducted by Miller and Serzan it was found that "Only one-third (33 percent) of the journals . . . use some type of evaluation criteria form, and only ten percent publish it regularly to aid prospective authors."[28] It could be in editors' interests to devise formal sets of evaluation criteria (if they do not already exist) and to publish these criteria in one issue each year. In general, the suggestions of O'Connor and Van Orden are as valid today as they were a decade ago and deserve reiteration:

> 1) Journals should regularly publish specific statements on their purpose, scope, and audience; 2) journals should publish the criteria used to evaluate manuscripts; and 3) journals should adopt a double-blind refereeing system.[29]

It is evident from Table 2 that a number of means of evaluation are at work in library and information science journals. In this respect library and information science is probably no different from most fields, especially professional fields. If a particular journal's intention is to be a forum for scholarly communication, then it should subscribe to agreed-upon standards for evaluation of manuscripts. Stephen Juhasz offers some recommendations for consideration, among which are multiple referees for each paper, detailed guidelines for communicating with editors (distributed to referees), a four-week period for referee review manuscripts, and indication by the journal of the use of referees in evaluation.[30] Greater standardization of practice could lead to a more efficient system of communication from the standpoint of both authors and editors.

How long does the process take?

One of Juhasz's recommendations intimates an area of concern with the communication process—publication delays. While there is general agreement that refereeing leads to the most objective means of evaluating papers for publication, it can, when there is a lack of diligence on the parts of referees or editors, exacerbate delays. As Eugene Garfield states,

> Real or perceived, delays in publication resulting from refereeing may be the most prevalent concern among scientists, who may have job security, promotion, or the need to establish priority for a discovery hanging in the balance.[31]

This concern is not limited to scientists; it is in the personal interest of anyone whose professional advancement depends on such criteria as publication to have papers published as quickly as possible. From the standpoint of the discipline, the timely dissemination of research and information can only serve to facilitate progress on all fronts.

The question of publication delays of library and information science journals is addressed in Table 3. The times from receipt of manuscripts to the arrival at publication decisions and the times from decisions to actual publication are reported in weeks.

As is true of the other factors examined in this study, there is considerable variation in practice from journal to journal (and even, at times, within the workings of individual journals). Though calculation of a general trend is difficult, it appears that the average time from submission to decision is approximately nine to ten weeks. The average time from decision to publication is approximately 26 weeks. Based on these calculations, an author of a paper accepted for publication can expect to see it in print about nine months after submitting it to a journal. While this seems to be a considerable delay, it

Table 2
Evaluation Process

Selection Process	No. of Readers
1. *Editor alone decides*	
Catholic Library World	1
Journal of Youth Services in Libraries	1
Law Library Journal	1
Medical Reference Services Quarterly[1]	1
Microform Review	1
Public Libraries	1
Public Library Quarterly	1
Voice of Youth Advocates	1
2. *Editor decides with assistance from staff*	
American Archivist	4
American Libraries	4-6
Bulletin of the American Society for Information Science	2
Horn Book	2
Legal Reference Services Quarterly	2-4
Notes	—
School Library Journal	3
3. *Editor and editorial board decide*	
Behavioral & Social Sciences Librarian	2-3
Canadian Library Journal	2
Cataloging & Classification Quarterly[2]	2-3
Government Publication Reviews[2]	3-6
Journal of Education for Library and Information Science	3-4
Technical Services Quarterly	1-3
4. *Editorial board decides*	
Research Strategies	5-6
5. *Referees who know author's name decide*	
Collection Building	2-4
Information Processing & Management	2
Journal of the American Society for Information Science	2
Medical Library Association Bulletin[3]	4
Online Review	3
6. *Referees who do not know author's name decide*	
Collection Management[4]	2-4
College & Research Libraries[4]	3
Information Technology and Libraries	1-2
Journal of Academic Librarianship	3
Journal of Library History	4-5
Library and Archival Security	2-4
Library & Information Science Research	3
Library Quarterly[4]	2-4
Library Resources and Technical Services[4]	1-3
Resource Sharing & Information Networks	2
RQ	3
School Library Media Quarterly	3
Science and Technology Libraries[3]	2
Serials Librarian[4]	2-4
Special Libraries	2
7. *Combination*	
Online	2
The Reference Librarian	10-15
RSR: Reference Services Review	2-3

1. Sometimes uses editorial board and referees who do not know author's name
2. Manuscript is reviewed by readers who are usually, but not always, members of the editorial board
3. Editor makes the final decision
4. Editor assumes ultimate responsibility for decision

Table 3
Publication Delays

Title	Time from receipt of manuscript to pub. decision (in wks.)	Time from pub. decision to publication (in wks.)	Is criticism of rejected manuscripts offered?
American Archivist	—	—	—
American Libraries	6-8	4-12	Sometimes
Behavioral & Social Sciences Librarian	15	26-32	Yes
Bulletin of American Society for Information Science	3	6	No
Canadian Library Journal	26	6	Not to great extent
Cataloging & Classification Quarterly	10-15	30-40	Yes
Catholic Library World	2	c.26	Yes
Collection Building	6	10-30	Yes
Collection Management	5-8	c.20	Yes
College & Research Libraries	6-8	8-16	Yes
Community & Junior College Libraries	varies	12+	Yes
Government Publications Review	6-8	c.52	Extensive
Horn Book	4	6-52	Sometimes suggests other publications
Information Processing and Management	3	12	Yes
Information Technology and Libraries	6	8-12	Yes
Journal of Academic Librarianship	6-8	12-52	Yes
Journal of Education for Library and Information Science	8-10	c.24	Yes
Journal of Library History	12-16	52+	Yes
Journal of the American Society for Information Science	c.12	c.65	Yes
Journal of Youth Services in Libraries	.5-4	1-16	Some
Law Library Journal	6-8	26-52	Yes
Legal Reference Services Quarterly	8-12	26	Sometimes
Library and Archival Security	5-6	c.20	Yes
Library & Information Science Research	12	12-26	Yes
Library Hi-Tech	2-12	12-64	As time permits
Library Journal	c.4	8-24	When appropriate
Library Quarterly	2+	26-52	Yes—varies
Library Resources and Technical Services	1-10	varies	Not in depth
Medical Library Association Bulletin	8-10	c.4-8	Yes
Medical Reference Services Quarterly	6	38	Yes
Microform Review	1 day	26-52	If needed
Notes	1-8	4-12 + 26 lead time	Sometimes
Online	c.4	30	Upon request
Online Review	12	8	Yes
Public Libraries	1-26	10-52	Not usually
Public Library Quarterly	c.4	c.22	No
The Reference Library	1.5	16-32	Yes
RSR: Reference Services Review	52-104	52-78	Yes
Research Strategies	varies	8	Yes
Resource Sharing & Information Networks	10-15	26-78	Yes
RQ	19	37	Yes
School Library Journal	16-26	usually 12	No
School Library Media Quarterly	6-8	12-26	No
Science and Technology Libraries	2-3	26-38	Yes
Serials Librarian	5-6	c.20	Yes
Special Libraries	16-20	16-20	On request
Technical Services Quarterly	c.4-8	c.20-30	Always
Voice of Youth Advocates	3-6	36-52	Sometimes

should be noted that the time required for the same process in the humanities is about 15 months.[32]

Causes for delays can be several. As is mentioned above, the refereeing process, when not operating smoothly, can take time. Communication is not facilitated when a manuscript languishes on a referee's desk. A backlog of accepted manuscripts can delay publication, especially in journals published quarterly or semi-annually. Another factor causing delays is copyediting. If a manuscript has to be returned to an author for revision another layer is added to the process.

Some editors indicate that revision is not an uncommon occurrence. One states, "The quality of submissions these days is generally high, but copyediting, even so, is necessary." The need for revision or editing can be extensive. as is evidenced by the following comment: "Few manuscripts are accepted without at least *some* revision." Another is even stronger in an assessment of the need for revision: "99 percent of all articles published are revised prior to acceptance. In two years we've only published *one* unrevised piece. Some require extensive revision—so the elapsed time from submission to acceptance is a two-stage process, usually." When considering the above factors, along with the time required to print and distribute the journal, a delay of nine months may not be so onerous as it first appears.

The well-prepared get published

The data presented here illustrate that it is not a foregone conclusion that a manuscript submitted to a journal will be accepted for publication. Because of this there exists, and probably will exist for some time, competition for space in the pages of journals. This space likely will go to the well-prepared. Getting published in journals is not a game, but it sometimes emulates one. Journals or editors have rules that participants are expected to follow. Some journals make their rules known; some do not. Most include instructions to authors regarding manuscript preparation and bibliographic form, but very few share their evaluation criteria if, indeed, they have formally developed criteria.

Who is successful at getting into print? Paula D. Watson examined authorship of articles in 11 major journals for the period 1979 through 1983 and found that, on average, 65 percent of the articles were written by academic librarians and library school faculty and students.[33] Watson identifies the 20 most productive "academic" libraries (one of which is the Library of Congress). Productivity is measured by the number of publications written by persons affiliated with the libraries.[34]

Of the 19 *academic* libraries, 18 are members of the Association of Research Libraries. The advantage that those working at such institutions enjoy may or may not be based on the institution's reputation. More like something which is at once more subtle and more basic may be at work, as Felix M. Berardo observes:

> While it is sometimes found that higher ranked academicians from more prestigious institutions are more successful in their publication endeavors, the explanation more likely rests, not in the operation of particularistic factors, but in the social structure of academia itself: Larger universities have more money and resources. Consequently, they attract faculty from other large universities who are trained in sophisticated research methodologies.[35]

As a corollary to Berardo's statement, the larger universities also have greater resources and better funding for research and may have higher expectations for the people affiliated with them. Because of these phenomena, in library and information science, as in most disciplines, individuals in less advantageous situations must narrow the gap through initiative and perseverance.

O'Connor and Van Orden end their paper on a positive note with their suggestions for reform. Their suggestions should be implemented as quickly as possible. Also, the editors of journals might gather as colleagues to discuss such matters as standards for evaluation of manuscripts. The scene appears to have brightened somewhat in the last decade. More journals are employing referees to help make publication decisions. One assist to authors is evident in Table 3—most journals offer at least some criticism of rejected manuscripts. If it is agreed that library and information science is a dynamic profession, then there should be great hope for communication in the field and for the journals that foster and present the communication.

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Why That "Bad Rap" for Academic Libraries?
Library Literature, ERIC, & LISA Evaluated

ET TU, JOAN?
142 First Novels

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ET TU, JOAN?
142 First Novels

Joan Collins is more recognizable than most first novelists; will she be more successful? Comments from other first novelists begin on page 42. Photograph: © 1987 by Gary Bernstein

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These first novelists comment on trends in contemporary fiction, but can't always select their own niche

First Novelists

142 New Novels for Fall & Winter

MARION ETTLINGER

M.E. Hughes

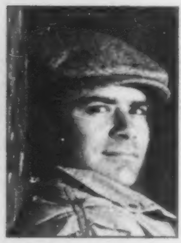
Hope N. Coulter

Katherine Neville

JERRY BAUER

Andrea Barrett

Carolyn Vesser


DONNA CONNOR

Bill Kent

ROBERT GIARD

Dolores Klaich

Jessie Lattimore

John Champagne

By Ann Burns & Nora Rawlinson

AS OUR COVER demonstrates, it is dangerous to generalize about first novelists; one certainly cannot assume they're all starving artists struggling for recognition. However, we're sure Joan Collins shares some of the anxieties of her fellow first novelists. She, of course, has the added pressure of possible comparison to her sister Jackie, who has already done rather well in this field.

But most first novelists do not have an easy access to the broad reading public. Patricia Weaver Francisco, author of the forthcoming *Cold Feet*, said best what we try to do in our twice-yearly roundup of first novelists: "We are mostly lost to the world at large, until someone . . . takes the time to point us out, to say: 'take a chance, read something new.' "

For years, *LJ* has posed a question to authors and published a selection of their responses. This time, we asked them for their insights into trends in contemporary fiction and where they saw their own work in relation to those trends.

Don't fence me in

Quite rightly, many of the authors responded with an objection to being forced into categories.

Anthony Schmitz
Lost Souls
While writing my first novel I behaved like a landlubber thrown into the ocean. I wasn't worrying about trends in fiction; I just wanted to stay afloat . . . . I ended up with a novel that is a throwback, old-fashioned in its concerns. It's short, but not minimalist. My muddled hero wouldn't know ennui if you hit him with it. For the most part this was a matter of necessity. I was writing a first novel, which is to say I was looting my past. I found there an extremely short supply of disaffected characters.

Ronald A. Cross
Prisoners of Paradise
A visionary descends into deeper and deeper levels of quiet until he dissolves, and nothing is left but limitless stillness. Then, coming back out of this ocean, he sees everything fresh, without the interference of that noise which is the past . . . .

But wait, literary sharks are cruising the surface, constantly alert,

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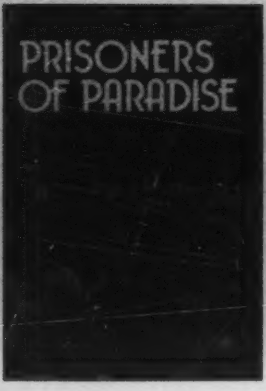
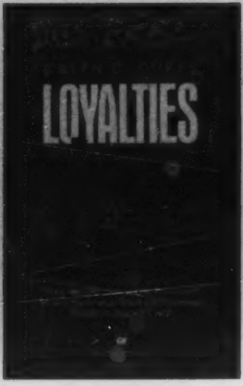
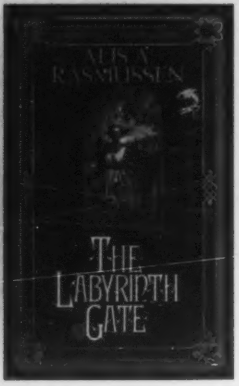
Ann Burns is Staff Editor, and Nora Rawlinson is Editor, The Book Review, *LJ*







constantly hungry. They will steal whatever they can use, always disguising this behavior by claiming to be part of a movement, just as a pickpocket tries to conceal what he's doing by working in a crowd.

The visionary couldn't care less. See—he is already rising once again, fresh from that cosmic sea. Bearing gifts for all. He will only pause to catch his breath, and dive again.

Naomi Ragen
Jephte's Daughter
Asking how fiction is changing and where it is going is somewhat like asking how people are changing and where mankind is going. The new fiction I read that interests and influences me is about what good books have always been about—the struggle of men and women to make some sense of what it means to be alive on this earth . . . . My goal, and I suspect this is true of many contemporary writers—is to reach into readers' hearts . . . in order to wrench from them some compassion and respect for those differences that make we human beings so worth understanding.

Yale Kramer
Primal Scene
I'm afraid that I am hopelessly backward about current trends on the literary scence. I'm not even sure where the literary scene is. Perhaps writers are not as mindful of trends as editors and agents—and perhaps, too, that's as it should be. It seems to me that writers have enough trouble getting the words right.

I seem to have been much more influenced by writing from the past than from the present. In writing *Primal Scene* I wanted nothing more than to hold the reader spellbound.

Let me entertain you

It was surprising to find how often these new novelists harked back to this old-fashioned function of literature.

Robert E. Merritt
To the Death
My high school literature teacher once asked the class to explain the purpose of literature. We gave our lofty answers, and she came back, shaking her head, to say we had all missed the essential point—that it must first entertain.

Galen C. Dukes
Loyalties
The greatest gift today's fiction writer can give the reader is entertainment, with the cause to reflect. I believe fiction writers, myself included, fall in one of two categories: those that are able to write what is currently popular, and those that write what they hope will be.

M.E. Hughes
Precious in His Sight
In the beginning I was writing in opposition to what I perceived as the current style—a certain flatness, heavy mentioning of brand names, a greyness of tone . . . . If there is meaning to what one writes, style is not that important.

I write in the voice I was nurtured on—that of a Southerner spinning a yarn on a porch in the dark.

Hope Norman Coulter
The Errand of the Eye
Linguistic and literary crazes notwithstanding, I still believe that people crave a good story, and that their instinctive standards are sound: good stories entertain. They offer diversion from the humdrum and chaos of experience. At the same time they point back to real life, affirming at least the possibility of meaning, values, and consequences . . . . My own work belongs . . . to a tradition of narrative about characters who do things—venture and meddle and rage and seek their fortunes; who are as mystifying as real people; and whose fates reverberate beyond themselves.

Jane Hamilton
The Book of Ruth
I think the newest trends in fiction—fiction which will endure—are also the oldest trends . . . . The basic secret is simple: You must tell a good story. I think we still need the same stuff human beings have always needed: heroes, stories, poetry. Some of my favorite novelists today . . . are poets and storytellers. I've been inspired by their good words.

J. Madison Davis
The Murder of Frau Schütz
Over the past century the avant-garde, once so brilliant, so vital, so breathtaking, has lost its primary weapon: the ability to shock . . . . After Auschwitz, Hiroshima, and Kampuchea, in

FALL & WINTER LINE-UP
51 Publishers/142 Novels

St. Martin's	13
Pocket Bks.	9
Random	9
Ballantine	8
S. & S.	8
NAL Bks.	7
Berkley Pub.	6
Dutton	6
Donald I. Fine	5
Walker	5
Baen Bks.	4
Naiad Pr.	4
Crossing Pr.	3
HBJ	3
Putnam	3
Lyle Stuart	3
Viking	3
Ashley Bks.	2
Atlantic Monthly	2
Farrar	2
Harper	2
Knopf	2
McGraw	2
Morrow	2
Warner	2
Weidenfeld & Nicolson	2
Academy Chicago	1
Algonquin Bks	1
Alyson Pubns.	1
August House	1
British American Pub.	1
Council Oak Bks.	1
Crown	1
DAW Bks.	1
Dell	1
Grove	1
Holt	1
Houghton	1
Mercury House	1
North Point Pr.	1
Norton	1
Pantheon	1
Pineapple Pr.	1
Presidio Pr.	1
Pushcart Pr.	1
Seal Pr.	1
Strawberry Hill	1
Ticknor & Fields	1
Tor Bks.	1
Watts	1
Zebra Bks.	1

the milieu of television, what can fiction do? At present, to explore a corner of the darkness is sufficient for me. To write a novel that my father, a bus driver, would have enjoyed is neither frivolous nor easy. The best entertainment—comedy, mystery, or thriller—is both moral and serious, but is never simplistic and never condescends.

Edward R. Jones
Cage
The evolving trend in contemporary fiction appears to be the abandonment of extensive in-depth characterization in favor of fast-paced realism . . . . I believe that contemporary fiction must reflect contemporary attitudes, and today's emphasis is on speed—from the way we drive to the way we eat—and the contemporary novelist must be prepared to serve up literary Big Macs. Modern readers want to be entertained, not held captive. They don't have time for it.

Katherine Neville
The Eight
Just as Guarneri learned to make a better violin by keeping his eye on what Stradivari was up to, so do we fiction writers read books—not only for information or entertainment as other readers do—but with a peek up the sleeve to see how it was done. To learn the tricks of the trade.

There are many wonderful trends in today's fiction . . . . But in my travels I've learned that we American writers seem to be the last of a dying breed churning out the real novel in the classical tradition. Whether it's a three-generation saga of a family living through war, strife, and marital problems (after Tolstoy); the tale of a young woman trapped in suburbia, living out her fantasies by having an affair with the neighbor (snitched from Flaubert); or the potboiler about the lifestyles of the rich and famous (inspired by Marcel Proust), the plots still pique the interest and delight the hearts of readers everywhere.

Is less more?

Minimalism is a trend that has received a lot of attention lately. Our novelists' reactions to it were mixed.

Vicki Covington
Gathering Home
A good novel is simply, for me, a long good story. If novels are growing shorter, maybe it's because people like Raymond Carver have shown us that minimalism can take us to the heart of art. Carver has taught us what sculptors have known for centuries—what's not there is what matters. And, maybe novels aren't getting shorter so much as good stories are just getting longer. I understand that Grace Paley tells writers, just listen to the sounds of your own neighborhood, your own household. That's what I try to do.

Andrea Barrett
Lucid Stars
Where do I fit in? I couldn't begin to guess, but I know what I aim for—a fusion of the richness and scope and psychological depth of the older novels I love with the leanness that's more popular now. Sort of a lean fatness, or maybe a rich, succulent leanness.

David B. Feinberg
Eighty-Sixed
The minimalist trend will continue unabated. Publishers will applaud this trend, citing shortened attention spans of readers, and lower printing and shipping costs. Stories will get shorter and shorter. Bret Easton Ellis's next novel will fit on a postcard; in 1995 Amy Hempel will receive the Pulitzer Prize for a well-placed period . . . . As for myself, a maximalist, I am currently working on a six-volume memoir of my grammar school years, from grades three to five, to be published . . . in the year 2000.

Ripeness is all

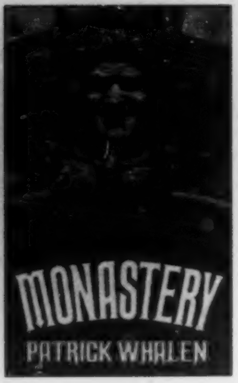
Others see the various genres as a welcome escape from trendiness.

Stephen Altman
Bowhunter
I write Westerns. It allows me to avoid post-modernism. There is a forthrightness to Westerns. The characters have scale. Working within a myth allows a writer to write large and to speak to large themes. To me, Western heroes and heroines are at once more real and more universal than contemporary urban characters . . . . They are born into a country that bashes them without a thought, which makes their love for that country all the more poignant—almost sacred. They have adversaries worth having. They base their moral judgments on instinct and experience rather than extended dithering. And, good and bad alike, they participate in a sin: the destruction of the Indians. This aspect of the Western is no myth; it is the core tragedy of American history. Under all the cowboy stuff is the serious and unresolved issue of redemption.

Bill Kent
Under the Boardwalk
When I was a young reader, my parents, teachers, and college professors viewed sf, fantasy, mystery and suspense as diapers for arrested adolescents. I don't, and the trend that pleases me the most in fiction is the increasing commercial and critical respect genre writers are getting . . . unlike many of the high-lit word mongers, the great genre writers cherish their readers. Their books invite us to gather around a campfire, listen to stories and savor them. For that, the genre writers will always have my admiration and love.

Douglas Borton
Manstopper
In a world of frightening headlines and disturbing TV news images, people seem to take some comfort in confronting demons that are safely fictional, and in seeing those demons defeated by characters of courage and intelligence. Horror novels permit the author to conjure up especially frightening villains and to present the conflict between good and evil in starkly absolutist terms. They are fairy tales for grownups, with many of the same moral overtones and mythic resonances.

Carolyn Vesser
Hellwalker
Faced with the competition of TV, today's writers have been forced to



produce better-crafted books; informative tales; complex characterizations, revealing the hopes and fears of the masses and the individual; plots with depth; and stories that entertain. Sf and the related genres of fantasy and horror, in coming out of the closet and comic book, have not only joined the trend, but lead it. A reader can find stories heavy on science, extrapolation, speculative, magical, terrifying—all with good characterization, complex plots, and the enrichment and entertainment to draw and hold its growing crowd of devotees, both young and old. As reading comes again into its own, sf is the place to be.

Constance Ash
The Horsegirl
Back in North Dakota when I was a child I'd pick out a photo album and give it to Greatgrandma. "Tell me about when you were a little girl." The stories and pictures were of blizzards, floods, droughts, duststorms, grasshopper swarms, and hail big as baseballs. Army uniforms, political rallies, pretty dresses, matched buggy horses, and the first steam thresher all had tales attached. Mother's life and mine on the farm seemed a continuation of stories three and four generations old.

Fantasy, as a fiction category, emphasizes heroic individuals pitched against catastrophe. The Red River Valley homesteaders were not the courtly heroes of medieval European romances. But I believe those heroes resemble my forebears, and that fantasy is a form appropriate to their sacrifice, struggle, and strong community codes. America continues to be a nation of immigrants, and this experience is becoming part of fantasy's traditions.

Anne Wingate
Death by Deception
What is happening is virtually everything—on the one side, a new realism, on the other side, trends toward surrealism in serious fiction and an immense, booming market for fantasy in popular fiction . . . .

I write mysteries because I like mysteries and because I think that, ultimately, all fiction is mystery fiction. The basic theme is a quest; the basic questions are "Who am I and what am I doing here?" and mysteries seek to deal more or less directly with these questions. At least mine do.

Wendell McCall
Dead Aim
Amid the inundation of the storm, a new warmth to the air: crime fiction is more literate, the varied protagonists, male and female alike, more human and sensitive . . . . Trapped no longer in the cage of pulp fiction, newly found freedoms allow crime novels to find perches on many a heretofore unwelcome bedside table.

Alis Rasmussen
Labyrinth Gate
To my mind, the most exciting trend in contemporary fiction today is the blurring of lines between genres. Our society has long tended to pigeonhole; in fiction this has resulted in the creation of genres used to label writers. But many novelists are now beginning to blend elements of different genres—mystery, Western, sf and fantasy, romance, historical, and the "serious" novel—to form a new synthesis that is stronger for being a blend.

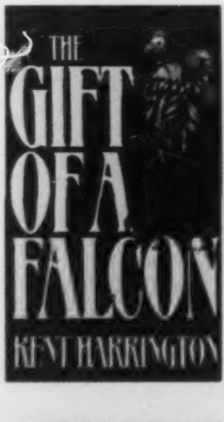
Joan Druett
Abigail
A book is like a lovely old clock people inspect to appreciate time-worn beauty, or else to find out the time.

Like clocks, too, fashions in books run by pendulum. One needs only to look at the history of literature to see that. In writing *Abigail* I reached back to the beginnings, when "romance" was the rage, but not "romance" the way we see it now. Romance began with tales of villains and heroes, knights in armor, and flowers spilled into the dirt; it turned lust into love and war into patriotic pageantry.

Lavender fiction

The popular press has already identified novels with gay characters as a trend ("Out of the Closet Onto the Shelves," *Newsweek*, March 21, 1988, and Richard Hall's "Gay Fiction Comes Home," *New York Times Book Review*, June 19, 1988). But lesbian authors, as Dolores Klaich points out, have been overlooked. This season, two small presses (Naiad Press and Crossing Press) are publishing four first novelists whose books deal with lesbian themes. Since small presses are often in the vanguard, this may be a trend we'll see picked up by mainstream publishers.

Dolores Klaich
Heavy Gilt
The characters in my novel are lesbian or gay and its subject (presented in broad comedy) is internalized homophobia, so perhaps *Heavy Gilt* falls into the trendy genre of gay fiction—trendy, because the *New York Times Book Review*, in a page one essay, recently told us such an entity exists. However, since nary a lesbian writer was mentioned in the essay—only gay men—perhaps, alas, my novel isn't trendy at all.



KILL
THE POOR
JOEL
ROSE

Heavy Gilt is also a mystery—although the mystery genre police probably would call it a confection. Also, it has a message, so maybe it's not a novel at all. Therefore, as one of my characters thinks—trying to remember the words of Gertrude Stein: "Things as they seem are not things as they are—or maybe it was the other way around."

Jessie Lattimore
High Contrast
In my novel, the task was to take an unlikely protagonist—a lesbian stripper—and make her a universal heroine. This is an example of the current trend recognizing that the 'layers which separate us as human beings are gossamer indeed.

AIDS & censorship

It has been feared in some quarters that AIDS might have a chilling effect on gay writing. One of our first novelists fears an AIDS backlash may serve as a spur to censorship of all writing.

John Champagne
The Blue Lady's Hands
AIDS has radically altered the choices a writer confronts when representing sexuality. A backlash against sex seems to be occurring—a backlash that writers are sure to feel in the form of censorship. The crisis situation pressures writers into making ill-informed choices—e.g., avoiding safe sex altogether, or forcing their writing into being prescriptive of someone else's moral agenda . . . . Considering the antisex hysteria with which certain groups have greeted AIDS, the situation doesn't bode well for civil liberties. [This] may provide the excuse the Jesse Helmses of the world have been seeking for so long to insure that sex remains an unrepresentable but necessary evil.

Women's work

We were surprised at how few responses mentioned the influence of women writers. Perhaps we have moved beyond women writers being a "trend" into their being a part of the mainstream, and if there ever were topics considered outside the scope of women writers, that is no longer so.

Patricia Weaver Francisco
Cold Feet
An aquaintance once explained the absence of women writers on his bookshelf with the claim: "Women don't write about God or war." That notion becomes increasingly arguable as the subject of war, most particularly the Vietnam War, begins to be addressed by women writers. Jayne Anne Phillips's *Machine Dreams* (1984), Bobbie Ann Mason's *In Country* (1985), and Marge Piercy's *Gone to Soldiers* (1987) have examined the effects of war on all its victims—civilian and soldier, the war at home as well as on the battlefield. My own novel . . . concerns a draft resister's troubled homecoming after six years of exile in Canada, and looks at the wounds the Vietnam War left in men and women who did not face death in a nameless jungle, but whose lives were left dramatically unsettled.

The First Novels

Listed below are all the first novels reported to *LJ* that are currently scheduled for publication between September 1 and January 31, 1989. The dates following the publication information refer to recently published *LJ* book reviews.

GENERAL FICTION

Ellen Akins, **Home Movie** *(S. & S.—November)*
Jerome Badanes, **The Final Opus of Leon Solomon** *(Knopf—January)*
Nicholson Baker, **The Mezzanine** *(Weidenfeld & Nicolson—October)*
Andrea Barrett, **Lucid Stars** *(Delta: Dell—September)* [*LJ* 10/1]
Marilyn Beck, **Only Make Believe** *(Berkley Pub.—November)*
Dan Bentley-Baker, **The Paper Boat** *(Pineapple Pr.—September)* [*LJ* 10/1]
Neil Bissoondath, **A Casual Brutality** *(Crown—January)*
C.F. Borgman, **River Road** *(NAL Bks.—September)*
Michael D. Brown, **Under Heat** *(NAL Bks.—January)*
Michael Carson, **Brothers in Arms** *(Pantheon—September)*
Susan Chace, **Intimacy** *(Random—January)*
John Champagne, **The Blue Lady's Hands** *(Lyle Stuart—October)*
Sybil Claiborne, **A Craving for Women** *(Dutton—September)* [*LJ* 9/15]
Joan Collins, **Prime Time** *(Linden: S. & S.—October)*
Merle Collins, **Angel** *(Seal Pr.—September)* [*LJ* 10/1]
Rand R. Cooper, **The Last To Go** *(HBJ—October)*
Robert Coram, **Narcs** *(Signet: NAL—December)*
Hope Norman Coulter, **The Errand of the Eye** *(August House—September)* [*LJ* 9/1]
Vicki Covington, **Gathering Home** *(S. & S.—September)*
Susan Saxton D'Aoust, **Long Shadows** *(Dutton—September)*
Roger L. DiSilvestro, **Ursula's Gift** *(Donald I. Fine—September)*
Joan Druett, **Abigail** *(Random—October)*
Galen C. Dukes, **Loyalties** *(Ivy Bks: Ballantine—October)*
Sarah Dunant, **Snowstorms in a Hot Climate** *(Random—November)*
Gretel Ehrlich, **Heart Mountain** *(Viking—October)* [*LJ* 10/1]
Trey Ellis, **Platitudes** *(Vintage: Random—September)*
Jack Engelhard, **Indecent Proposal** *(Donald I. Fine—January)*
David B. Feinberg, **Eighty-Sixed** *(Viking—January)*
Sam Fishman, **The Druggist** *(Lyle Stuart—November)*
Christopher Fowler, **Roofworld** *(Ballantine—September)*
Patricia Weaver Francisco, **Cold Feet** *(S. & S.—November)*
Jonathan Franzen, **The Twenty-Seventh City** *(Farrar—September)*
Sarah Glasscock, **ANNA L.M.N.O.** *(Random—October)*
Brad Gooch, **Scary Kisses** *(Putnam—September)*
Jane Hamilton, **The Book of Ruth** *(Ticknor & Fields—November)*
Kathryn Harvey, **Butterfly** *(Villard: Random—September)*
Alan Hollinghurst, **The Swimming Pool Library** *(Random—September)* [*LJ* 9/1]
M.E. Hughes, **Precious in His Sight** *(Viking—November)*
Frances Kennett, **A Woman By Design** *(Random—September)*
Lowell Komie, **The Last Jewish Shortstop in America** *(Academy Chicago—October)*
Reva Korda, **Splendor** *(Pocket Bks.—December)*
Agota Kristof, **The Notebook** *(Grove—October)*
Jessie Lattimore, **High Contrast** *(Naiad Pr.—September)*
Elizabeth Levin, **The Story of a Happy Woman** *(Dutton—November)*
Natalya Lowndes, **Chekago** *(Dutton—September)*
Amin Maalouf, **Leo Africanus** *(Norton—January)*
Kristin McCloy, **Velocity** *(Random—October)*
David Markish, **Jesters** *(Holt—September)* [*LJ* 9/1]
Douglas Mine, **Champions of the World** *(S. & S.—November)*
Sandra C. Moore, **Private Woods** *(HBJ—September)*
Meredith More, **October Obsession** *(Naiad Pr.—September)*
Katherine Neville, **The Eight** *(Ballantine—January)*
Robert Noah, **All the Right Answers** *(HBJ—October)*
Denise Ohio, **The Finer Grain** *(Naiad Pr.—October)*
Naomi Ragen, **Jephte's Daughter** *(Warner—January)*
Joel Rose, **Kill the Poor** *(Atlantic Monthly Pr.—October)*
Nan Ryan, **Stardust** *(Donald I. Fine—October)*
Jennifer Saal, **Honor the Dream** *(Pocket Bks.—November)*
Aram Saroyan, **The Romantic** *(McGraw—November)*
Anthony Schmitz, **Lost Souls** *(Available Pr: Ballantine—October)*
Paula Sharp, **The Woman Who Was Not All There** *(Harper—September)* [*LJ* 9/1]
Terri M. Smith, **False Starts** *(Knopf—September)*
John Smolens, **Winter by Degrees** *(Dutton—December)*
Stephen Stark, **The Outskirts** *(Algonquin Bks.—October)*
Tracy Stern, **Longings** *(S. & S.—September)*
Jane Vandenburgh, **Failure To Zigzag** *(North Point Pr.—January)*
Barbara Victor, **Absence of Pain** *(Harper—September)* [*LJ* 10/1]
Edmund Waterbridge, **Hinterland** *(Council Oak Bks.—November)*
Peter Wludyka, **The Past Is Another Country** *(S. & S.—September)*

THRILLERS

Jack Anderson, **Control** *(Zebra Bks.—October)*
George Bernau, **Promises To**

New Age

We have been wondering whether the label New Age might begin to be applied to fiction. According to the following author, it's too early to call it a category.

Devin O'Branagan
Spirit Warriors
I believe the most recent trend in fiction is a nebulous, new genre that many are calling New Age fiction. When I first wrote *Spirit Warriors* I did not slant it toward any particular genre. The New York agent who accepted it was the first to refer to it as a New Age novel. She passed it on to an editor at Pocket Books who faced the dilemma of how to market it. The question arose, "Yes, but where do we put it in the bookstores?" Pocket and I resolved this problem by my performing major revisions that rendered the book a horror novel, while retaining its New Age elements. Mine is not the first New Age novel to assume the mantle of an established genre in order to find a publisher. Someday soon, however, I believe that New Age fiction will become a popular and respected genre in its own right.

Machine dreams

Although none of the authors mentioned it specifically, we were made very aware of the presence of the word processor in the writing process. Many of the authors apologized for making mistakes on our form, which requires a now unfamiliar old instrument, the typewriter. Thus, it was charming to have Jerome Badanes tell us he writes with a fountain pen and had to have a fellow author type his form for him. We were further intrigued to learn that his book concerns an extreme reaction to banishment from the New York Public Library: the hero, a Jewish historian, contemplates suicide after being caught stealing documents from the Judaica collection.

Jerome Badanes
The Final Opus of Leon Solomon
American fiction of the 1980s has been punctuated with small successes that give us a reduced picture of human nature and a partial view, at best, of the larger world in which they are set. These works are memorable in their insistence on a language that is flat in its honesty, and in their reluctance to engage the life and death issues of the late 20th century. They mirror accurately a decade of smallness, exclusion, and forgetfulness in our national life.

It is time once more for a riskier and larger fiction—and this fiction has always been written—a wilder fiction that is lyrical, generous, bitter, funny, political, philosophical, sexy, subversive, able to contain contradictions, a fiction that is made up of questions, a fiction that peers then steps into dark places and illuminates them, an imperfect fiction that is unafraid to laugh at its own failing attempts to get to the bottom of things. I am drawn to this larger fiction that mirrors, but also fiercely remembers and envisions.

Keep *(Warner—October)*
Alan Engel, **Variant** *(Donald I. Fine—January)*
Guy Garcia, **Skin Deep** *(Farrar—November)*
Kent Harrington, **The Gift of a Falcon** *(McGraw—September)*
Edward R. Jones, **Cage** *(Pocket Bks.—January)*
Franklin A. Leib, **Fire Arrow** *(Presidio Pr.—September)* [*LJ* 9/15]
John L. Martin, **Angel Food** *(Strawberry Hill—November)*
Steven P. Martini, **The Simeon Chamber** *(Donald I. Fine—October)*
Robert E. Merritt, **To the Death** *(British American Pub.—November)*
Andrei Moscovit, **The Judgment Day Archives** *(Mercury House—September)*
Bernard J. O'Keefe, **Trapdoor** *(Houghton—September)*
Brian Todd, **One Step at a Time** *(Ashley Bks.—November)*

DETECTIVE STORIES

Michael Cormany, **Lost Daughter** *(Irma Heldman: Lyle Stuart—October)*
Dolores Klaich, **Heavy Gilt** *(Naiad Pr.—October)*

ADVENTURE

Gary Cook, **Graveyard Rules** *(Pocket Bks.—October)*

CRIME

Yale Kramer, **Primal Scene** *(Arbor House: Morrow—January)*

MYSTERY

Kelly Bradford, **Footprints** *(Crossing Pr.—September)*
Russell A. Brown, **Sherlock Holmes and the Mysterious Friend of Oscar Wilde** *(St. Martin's—December)*
Dick Cluster, **Return to Sender** *(Dutton—October)*
J. Madison Davis, **The Murder of Frau Schütz** *(Walker—October)*
James DeBrosse, **The Serpentine Wall** *(St. Martin's—December)*
D.J. Donaldson, **Cajun Nights** *(St. Martin's—October)*
Ellen Godfrey, **Murder Behind Locked Doors** *(St. Martin's—September)*
Judy Grahn, **Mundane's World** *(Crossing Pr.—September)*
Ken Grissom, **Drop-Off** *(St. Martin's—October)*
Tom E. Kakonis, **Michigan Roll** *(St. Martin's—September)*
Bill Kent, **Under the Boardwalk** *(Arbor House: Morrow—November)*
Dolores Komo, **Clio Brown** *(Crossing Pr.—September)*
James Luceno, **Río Pasion** *(Ivy Bks: Ballantine—November)*
Wendell McCall, **Dead Aim** *(St. Martin's—December)*
Archer Mayor, **Open Season** *(Putnam—September)*
Stanley R. Moore, **Nightshade** *(Onyx: NAL—January)*
Anthony Quogan, **The Fine Art of Murder** *(St. Martin's—September)*
Christopher Reed, **The Big Scratch** *(Ballantine—November)*
Leah R. Robinson, **Blood Run** *(NAL Bks.—September)*
Stephen Solomita, **A Twist of the Knife** *(Putnam—October)*
Patricia H. Sprinkle, **Murder at Markham** *(St. Martin's—November)*
Don Swaim, **The H.L. Mencken Murder Case** *(St. Martin's—November)*
John Bartholomew Tucker, **The Man Who Looked Like Howard Cosell** *(St. Martin's—November)*
Anne Wingate, **Death by Deception** *(Walker—November)*

ROMANCE

Joe David Bellamy, **Suzi Sinzinnati** *(Pushcart Pr.—January)*
Jo Beverley, **Lord Wraybourne's Betrothed** *(Walker—October)*
Mavis Cheek, **Pause Between Acts** *(S. & S.—November)*
Penny Colvin, **Blood and Wine** *(Pocket Bks.—January)*
Beryl Kingston, **A Time To Love** *(St. Martin's—October)*
Richard Rayner, **Los Angeles Without a Map** *(Weidenfeld & Nicolson—January)*
Marylyle Rogers, **Wary Hearts** *(Pocket Bks.—November)*
Debra Lee, **Heartbeat** *(Ashley Bks.—November)*
Katherine Sturtevant, **A Mistress Moderately Fair** *(Alyson Pubns.—September)*
Theresa Weir, **Amazon Lily** *(Pocket Bks.—October)*

HORROR

Douglas Borton, **Manstopper** *(Onyx: NAL—September)*
R. Patrick Gates, **Fear** *(Onyx: NAL—October)*
Devin O'Branagan, **Spirit Warriors** *(Pocket Bks.—November)*
Michael Paine, **Cities of the Dead** *(Berkley Bks.—October)*
Patrick Whalen, **Monastery** *(Pocket Bks.—September)*

FANTASY

Constance Ash, **The Horsegirl** *(Ace: Berkley—October)*
Steve Hickman, **The Lemurian Stone** *(Berkley Bks.—September)*
Carl Miller, **Dragonbound** *(Berkley Bks.—December)*
Melanie Rawn, **Dragon Prince** *(DAW Bks.—December)*
Matt Ruff, **Fool on the Hill** *(Atlantic Monthly Pr.—October)*
Delia Sherman, **Through a Brazen Mirror** *(Ace: Berkley—January)*

SCIENCE FICTION

Johanna M. Bolton, **Alien Within** *(Del Rey: Ballantine—January)*
Ronald A. Cross, **Prisoners of Paradise** *(Watts—October)*
Stephen Fine, **Molly Dear** *(Thomas Dunne Bk: St. Martin's—November)*
Aline B. Kaplan, **Khyren** *(Baen Bks.—October)*
Alis Rasmussen, **Labyrinth Gate** *(Baen Bks.—December)*
Melissa Scott & Lisa Barnett, **Armor of Light** *(Baen Bks.—October)*
Carolyn Vesser, **Hellwalker** *(Tor Bks.—December)*
Eric Vinicoff, **Maiden Flight** *(Baen Bks.—December)*
Ann T. Zeddies, **Deathgift** *(Del Rey: Ballantine—January)*

WESTERNS

Stephen Altman, **Bowhunter** *(Walker—November)*
Kirk Winkler, **The Intruders** *(Walker—October)*

An evaluation of three online databases in librarianship: ERIC, LISA, and Library Literature

Librarianship Online:

Old Problems, No New Solutions

By Margaret F. Stieg & Joan L. Atkinson

OVER THE LAST 25 years many aspects of the information transfer process have been automated. Most libraries now offer online searching of databases as part of their reference services. Although the frequency of online database searching depends on the goals, objectives, and funding of the individual library, there is no doubt that online databases are increasingly important information sources.

Twenty-five years have also, however, allowed the first euphoria to fade. Just as computers no longer appear to promise planned obsolescence for librarians, we have come to appreciate that online databases are neither a universal panacea nor a substitute for reference work. Indeed, they have distinct limitations. Experience has taught that obstacles often prevent us from obtaining good results from an online database search and that not all can be surmounted by better planning or more knowledge.[1]

Databases come in a bewildering variety of forms and multiply daily. The most commonly used in most libraries are bibliographical but there are also numeric, text, and graphic files. Some reference sources are now online, such as the *Academic American Encyclopedia* or the *BLS Consumer Price Index*.

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Bibliographic databases are searched for any of the reasons one might consult a bibliography: to find some material on a subject, verify a publication by a particular author, or to find out what articles were published in a certain journal last year. Machine combination of data elements permits very precisely tailored results. An online bibliographical database, however, remains a bibliography, and purpose, authority, scope, currency, kind and amount of information given, and accuracy are just as fundamental as they ever were.

Criteria for evaluation

This article will consider the quality of the bibliographical control achieved by the three online databases that offer significant coverage of the literature of librarianship: ERIC, LISA, and Library Literature.[2] It will focus primarily upon coverage and indexing. It attempts to provide useful guidance to those planning a database search in librarianship and to raise broader issues about database construction in general.

In his classic introduction to online databases, F.W. Lancaster listed six performance criteria: coverage, recall, precision, response time, user effort, and form of output.[3]

Coverage has too often been neglected, probably because it is very difficult to establish under any circumstances and particularly so online. This neglect is especially regrettable because low coverage makes nonsense of the notion of high recall. What does it profit a reader to obtain 90 percent of the articles on library funding patterns in some mythical database when the database includes only ten percent of the articles on library funding that have been written?

A good review will always describe the scope of a database in terms of formats, dates, languages, and subjects included, but only rarely does a reviewer make any effort to analyze the proportion of relevant material included and excluded within those categories. In the absence of any consideration of coverage, statements on recall are bound to leave a misleading impression.

Use of controlled vocabulary is the searcher's main weapon to achieve high precision. Because one of the primary objectives of a controlled vocabulary is to bring together all items relating to the same concept under a single indexing term, it also has a prominent role to play in achieving high recall. A 1980 study of ERIC searches confirmed that searchers depend heavily on controlled vocabulary terms, using them 68 percent of the time.[4] Indexing, too, is seldom treated in reviews.[5]

Comparing the databases

Although ERIC, LISA, and Library Literature share a similarity of purpose, they have little else in common. ERIC is one aspect of the information activity of the Educational Resources Information Center which also publishes *CIJE* (*Current Index to Journals in Education*) and *RIE* (*Resources in Education*). A field-oriented database, it began in 1966 and encompasses many aspects of education, such as educational psychology and educational sociology. Librarianship is only one component. Sixteen different clearinghouses cooperate to produce the database; the clearinghouse at Syracuse University is responsible for librarianship and information resources.

After the directors have selected articles from the 80 journals in their subject area (43 in librarianship) that are scanned, indexers do the indexing. ERIC also indexes some monographs, collections, and research reports. ERIC documents are usually indexed by graduate students in librarianship; journal articles are indexed and annotated by free-lance indexers who are mainly librarians. Material is almost entirely American and English-language. Full records input since 1979 include the following information: author, title, abstract, descriptors, identifiers, accession numbers, clearinghouse code, year of publication, country of publication, journal name, language, and update code. Other facts are given for *RIE* documents only, such as contract grant number.

LISA was begun in 1969. Although sponsored by the British Library Association, it is determinedly international in its outlook. The database is fairly evenly divided between English-language publications and non-English. Like ERIC, it includes a variety of formats, although LISA's current selection policies emphasize journal literature. In 1984 LISA included entries from some 465 journals both in librarianship and from fields outside librarianship. Again like ERIC, it is selective in its coverage of individual journals and indexes only a few with any approach to completeness. A typical full record under present rules of entry gives author, title, abstract, descriptors, section headings (a subject designator used in print production), section heading codes, accession number, journal name, language, year of publication, subfile, and update. For research records there are a few additional information elements like corporate source.

Library Literature is the online version of the H.W. Wilson's standard index to the literature of librarianship, *Library Literature*, published since 1934. The online version, however, only includes material indexed since October 1984. It is a true index, attempting to index comprehensively rather than selectively; book reviews, for example, are included. Of the 184 journals indexed in 1985, 74 are published outside the United States and 29 are not English-language. Monographs and library school theses are also indexed. The records include author, title, and a variety of subject access points such as corporate or conference names, subject headings, and uniform titles. Also given is whether there is an English-language abstract or not, accession number, a designation of the nature of the article's contents (e.g., autobiography), the form of reproduction, the record type, the series title, if any, and the year of publication. Library Literature does not have abstracts, limiting the potential

Table A
Percentage of Coverage of All Publications (P)
and of Articles (A) by Individual Authors

Author		ERIC	LISA	Library* Literature	Uniqueness ERIC	Uniqueness LISA
1	P	44	20	0	58	5
	A	54	25	0	54	0
2	P	6	12	25	10	45
	A	11	23	13	7	53
3	P	48	59	100	23	39
	A	62	69	100	22	31
4	P	11	14	50	33	42
	A	13	18	/	30	40
5	P	23	26	60	18	18
	A	19	21	60	20	20
6	P	8	25	/	0	25
	A	13	38	/	0	25
7	P	23	23	50	36	45
	A	24	29	50	30	50
8	P	38	37	100	29	29
	A	75	63	100	8	17
9	P	51	50	0	36	32
	A	63	79	0	15	25
10	P	19	31	/	17	50
	A	60	100	/	17	50
11	P	35	40	50	18	25
	A	55	56	50	19	19
12	P	56	37	50	48	24
	A	73	82	0	25	33
13	P	32	43	50	13	33
	A	35	50	50	13	33
14	P	24	35	0	7	36
	A	41	50	0	8	25
15	P	37	42	100	20	30
	A	50	70	100	0	29
16	P	15	38	100	17	61
	A	11	41	/	7	79
17	P	33	47	60	27	49
	A	39	56	50	22	48
18	P	15	18	100	31	34
	A	17	29	100	12	41
19	P	25	27	50	11	33
	A	32	44	0	8	17
20	P	20	40	55	13	51
	A	22	53	83	6	47
21	P	42	23	100	47	11
	A	45	33	100	33	8
22	P	41	34	40	30	25
	A	55	45	67	29	18
23	P	23	13	33	56	11
	A	38	25	100	50	13
24	P	24	9	0	77	15
	A	25	13	0	71	14
25	P	10	15	/	21	36
	A	10	16	/	20	30
26	P	25	40	100	10	40
	A	56	78	100	0	38
27	P	20	33	0	29	57
	A	25	33	0	33	50
28	P	38	22	75	42	21
	A	58	44	0	31	15
29	P	26	5	0	82	9
	A	21	4	0	80	0
30	P	35	30	83	15	25
	A	75	58	83	2	0
31	P	25	25	100	14	14
	A	40	50	/	0	20
32	P	17	29	/	22	56
	A	22	39	/	22	56
33	P	20	40	40	13	55
	A	21	40	38	14	53
34	P	50	59	100	0	14
	A	73	80	100	0	15

* The results for Library Literature are skewed because of its newness. A "0" in the column means that 0% of the items the authors considered it reasonable to expect Library Literature to include were present. A "/" means that no items were published after Library Literature began; it is equivalent to not applicable

of free-text searching, although Wilson is considering adding them to the Wilsonline databases at some future date. It does have title enhancements that somewhat extend potential subject access.

At present LISA is the largest database as far as librarianship is concerned. In July 1985 it contained approximately 70,000 records. ERIC is a much larger database, but entries on librarianship are only a small part of its over 500,000 records. If one compares the entries published in English since 1977 on librarianship in both databases, the relative size is clear. As of July 1986 LISA held 27,369 such records and ERIC 15,792. In its short life as an online database, Library Literature had entered 16,631 English-language records between October 1984 and July 1986.

Coverage

Although there are grounds for deploring the quality of the literature of librarianship, it is, for better or for worse, the only literature we have, and adequate bibliographical control of it is vital for the advance of our profession. Of all people, we librarians should be aware of the truth "that which is not listed is lost." In fact, for all practical purposes it might as well not exist. Mendel's law had to be rediscovered because it was published in the obscure and unindexed proceedings of the Brno Academy. We do not want that to happen to any critical finding in librarianship.[10]

For that very good reason most users of a database are more concerned with coverage than any other factor. The theme of the article "Why Engineers Don't Use Databases" was that the databases don't contain the product information that is essential in their work.[11] The authors surveyed for this article again and again expressed their dismay at what was not included. "Just plain shameful," said one.

Library Literature appears to be trying to create a (relatively) complete record of publications. ERIC and LISA offer abstracting and indexing of a selected collection of documents. Formerly it was impossible for one indexing service to do more than one thing. Technology now makes it feasible, although economics continue to impose limitations.

The Syracuse University clearinghouse of ERIC, for example, can add only 7500 records per year at present in librarianship and the other area for which it is responsible while LISA adds approximately 6500. Government reports were a casualty when

The Method of the Study, Special Problems, Cautions

To determine the extent and nature of the selectivity practiced by the databases, 67 journals were chosen, representing a variety of topical and type-of-library specializations, kinds of publishers, and places of publication. They were searched in ERIC and LISA for 1979 and 1984 and in Library Literature for 1984.[6] Results from the searches were then compared with the tables of contents of the journals for those years.

A complementary approach to coverage and information on perceptions of the quality of indexing was achieved by developing a list of prolific authors, active in the same subject areas from which journals were selected. Each author was asked to provide as comprehensive a bibliography as possible and to criticize the indexing terms applied to his or her publications.

In the course of performing these searches a number of problems arose that illustrate some of the difficulties and limitations encountered in online searching. All three systems make an attempt to standardize journal titles, but their efforts often leave much to be desired. In Library Literature the searcher is well advised first to search the JNL file to determine the correct form of entry rather than to depend on an expansion.[7] If this is not done, journals may be missed. For example, there is an entry for *The Library Quarterly* rather than simply and correctly *Library Quarterly*. LISA has at least two forms of entry for journals that began publication before 1983 because it formerly entered journals in abbreviated form.

The *Zentralblatt fur Bibliothekswesen*, a journal unhampered by any title change, appears in LISA in eight different ways. Some of the variations are the result of the decision to enter titles in full rather than to abbreviate them, but some are the result of carelessness. Perhaps the percentage of misentered titles is not high, but searchers who are convinced they "know" the correct form of entry and do not use an expand command will inevitably miss items they want.

Author searching is equally problematical. Neither ERIC nor LISA has attempted to establish authority control over authors' names—a very expensive undertaking—but enters them using the information in the document itself.

Exacerbating the situation even further, LISA formerly reduced all first and middle names of authors to initials. The well-known author, William A. Katz, writer on reference and creator of reference sources, appears in ERIC in two guises—Bill and Bill (ed.)—and in LISA in five—B., Bill, Bill (ed.), William, and William A. ERIC also includes publications of another William A. Katz. Peggy Sullivan was credited with a longitudinal study of diarrhea in day care centers that was in fact written by a different Peggy Sullivan. By reducing Herbert S. White, the present dean at Indiana University, to H.S. White, LISA conflated his articles with those of Howard S. White of Drexel, producing a collection only Herbert or Howard could disentangle.

Women's names caused particular difficulties. Nancy Van House appears variously in ERIC as Nancy A. Van House, Nancy A. Dewath, and Nancy V. Dewath and in LISA as Nancy Van House De Wath (that is, Van House De Wath, Nancy). Nancy Van House, Nancy A. Van House, N.V. Dewath, Nancy A. Dewath, and Nancy V. Dewath. Pauline Atherton Cochrane was Pauline Cochrane, Pauline (Atherton) Cochrane, Pauline A. Cochrane, Pauline Atherton Cochrane, Pauline Atherton, Pauline A. Atherton, and Pauline Atherton (ed.) in ERIC; LISA entered her eight different ways. Richard De Gennaro belongs in a category all his own. ERIC's failure to standardize treatment of surnames beginning with De as it has for Van names results in entries under both DeGennaro and De Gennaro. The computer is very sensitive to the presence or absence of a space and this is not a problem that a simple expand command will solve any more than it solves the problem of Bill Katz. Though Library Literature maintains authority control of names, it standardizes some mistakes as in the case of "Chelton, Mary Kay," who responds, "Kay is not my name, nor do I ever use it."

Typographic errors mar all databases. Because the searches for this study were confined to journal title and author, only typographical errors in those areas were apparent. Two significant ones, again because an expand command is unlikely to overcome them, occurred when ERIC and LISA created double listings for Margaret Stieg as both Stieg and Steig and LISA rendered Charles Osburn's impeccably English and spellable surname on one occasion as Osborne.[8]

The currency of the three databases varies considerably. Wilsonline loads indexing twice weekly, although the short time Library Literature has existed online made it difficult to appreciate the impact of this frequency. ERIC updates monthly and while a pilot search performed in January 1985 often failed to retrieve all 1984 material, by December 1985 all 1984 journals had been indexed. LISA was notably the slowest, a condition partially attributable to quarterly updating, partially a result of its difficulties in obtaining issues of journals from the British Library on whose collection it used to depend.

In December 1985 so much 1984 material was missing that a small sampling of articles was double checked in May 1986. Articles from the Fall 1984 *Drexel Library Quarterly*, September 1984 *Journal of Information Science*, December 1984 *LJ*, November 1984 *School Library Journal*, and the November/December-1984 *Buch und Bibliothek* were used to test; only *LJ* and *SLJ* articles had been indexed in the intervening period.[9]

LISA presents special cross-cultural problems for the American user just as

LISA was forced to cut back on what it had previously been able to do.

The scope of the three online databases in librarianship is similar in some important respects. They all define the literature of librarianship in a fairly narrow sense as the literature related to the practice of the profession, the publications written by librarians or information scientists for other librarians or information scientists.

ERIC is further restricted by its emphasis on the aspects of libraries that relate to education; it virtually excludes public librarianship for this reason. None of the three databases makes any attempt to include relevant material from other professional areas or disciplines from which librarianship draws its knowledge base. All list only current publications.

ERIC is to all practical purposes English-language only, while LISA and Library Literature both include non-English-language materials and pay more attention to English-language publications from outside the United States. The three databases make a superficial attempt to list material in different formats, but there is no doubt that they all emphasize journal articles.

Capricious selection

Within these boundaries selection can only be described as capricious. Some interviews are indexed, some aren't; some short articles are, some aren't. Why did ERIC index "Serving the Elderly: A Golden Opportunity for the Public Library" and "Sources of Anesthesia Literature for Medical Libraries" but ignore an issue of *Library Trends* devoted to historical children's books?

LISA indexed the Arabic translation of an article on continuing education for reference librarians but not the original *LJ* article. LISA included Part 2 of one article but not Part 1.

ERIC included the eighth edition of Phyllis Van Orden's basic book on the elementary school library collection, but not the ninth, tenth, or 11th editions. Neither ERIC nor LISA lists Phyllis Dain's book on the New York Public Library, unquestionably one of the most important publications in American library history, because at the time it was published they only rarely included monographs.

To some extent what is indexed is a function of what is collected. In 1968 McFarland described how difficult it was to obtain items that are not published by trade publishers. That has not changed, and much important material continues to be published in

ERIC must for the British user. Most of us are aware of the differences with which the two countries spell the same language, but there are other less obvious difficulties. Among the more troublesome that manifested themselves to the Americans doing these searches were the treatment of names and use of unfamiliar terminology.

A woman who signs an article with her full maiden as well as married name, e.g., Pauline Atherton Cochrane, may be endowed by the LISA system with an English-style double-barreled surname, Atherton Cochrane. Because Pauline Atherton Cochrane published extensively as Atherton, an expand should reveal this additional entry, but other women who have not published under both names are likely to be lost.

The same potential exists if a man signs himself using his full middle name, although men do this less commonly than women use their full maiden names.

LISA also employs British terms that may be unknown to Americans. "Library Stock" is used instead of "Library Collection"; "School Resource Centers" rather than "School Libraries" or "School Media Centers"; and "Central Government" instead of "Federal Government." Lack of familiarity with American abbreviations transmogrified Lancaster's article on the VA (Veteran's Administration) online information system into one on Virginia (also abbreviated VA), as far as LISA's indexing was concerned.

LISA handles the ampersand (&) erratically. For the most part, it was simply dropped. *College & Research Libraries* appears in a few entries as *College and Research Libraries*, but more often as College Research Libraries, or *Coll. Res. Libr.* I & R looks very strange as Ir. Only one of the eight 1984 *LJ* articles that printed an "and" with an ampersand in the title was entered in LISA with an "and"; in the other seven cases it was ignored.

The worst case was Malinconico's June 15, 1984 *LJ* article, "Catalogs & Cataloging: Innocent Pleasures and Enduring Controversies," which was converted to "Catalogue Cataloguing: Innocent Pleasures and Enduring Controversies." One also looks quizzically at Mitch Freedman's "The Catalog: Its Nature Prospects." Individuals who depend on an online entry for accurate citations do so at their peril.

In almost any search the searcher is left with a nagging feeling of unease and these searches were no exception. Was everything retrieved that should have been retrieved? The presence of false drops was obvious; for no visible reason a research project on Canadian user services in Canadian special libraries headed by Beryl Anderson appeared in the printout of Peter Hernon's publications. What was missed but was in the database cannot be known.

Other problems were inherent in the nature of the study. Unavoidably, a strong subjective element is present. The journals and authors chosen for examination were selected on the basis of the authors' perceptions and experience; they were not randomly determined. Classifying journals and authors' publications into various categories again involved subjective choices.

Perhaps the decision most fraught with discomfort was the determination of what was an article. Factors such as length and the significance of the topic treatment were considered, but often conclusions were arbitrary. There can be no doubt that any other individual making the same decisions would not give an identical list.

The selection of 1984 as one sample year created some difficulties. Originally preferred to the more current 1985 on the assumption that by the spring of 1986 journals would have arrived, been safely bound, and be waiting on library shelves for examination, this proved a sad miscalculation. It took extraordinary effort and the combined resources of the University of Alabama, the Library of Congress, and Columbia University—with a little help from Queens College (N.Y.) and the University of Chicago—to produce a not quite complete set of tables of contents for the journals.

This experience raises the very serious question of document delivery. How much value is there in identifying a useful publication if it can only be obtained with great exertion or not at all? Because LISA and Library Literature list so much infrequently held foreign material, this question is particularly germane to them. That inclusion of foreign material at the same time, however, is what frees them from parochialism and cultural chauvinism.

The authors would like to thank many people who helped at stages of the preparation of this article. Jane Stevens, for her sage advice and criticism; Pamela Skinner, for analyzing the Russian journal *Bibliotekar'*; Philip Turner for his help with the tables and figures; and Nick Moore of LISA, Cathy Rentschler of *Library Literature*, and B.J. Vaughn of ERIC for their willing assistance in providing information.

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reports of institutions or as technical reports.

ERIC, for example, considers the American Library Association and the American Society for Information Science its parents, but neither association sends copies of its publications. Even if the item in question is a standard journal, there may still be difficulties.

The online databases depend primarily upon complimentary copies and journal publishers are not always as cooperative as they might be. Nor is the postal service. The three services all maintain serial records, but as librarians know, while that defines the dimensions of the problem, it does not solve it.

To obtain some idea of the extent of coverage and the relative emphases of the databases, a series of tables was compiled. Table A gives the coverage of individual authors and shows several basic facts about the coverage of our literature in the online databases: a significant proportion of the literature is not being indexed online; articles are more likely to be indexed than material that is published in another format; and there is tremendous variation. In compiling this table the bibliographies provided by the authors were accepted as definitive lists of publications.

Format matters

Much of the variability in coverage is related to the format of the publication or, if it is an article, to the kind of journal in which it was published (see Figure 1). The kinds of materials most likely to be omitted are technical reports, books, or parts of books, whether we are talking about a reference work like the *ALA Yearbook* or a Festschrift. Articles from state library journals, newsletters, and alternative publications are conspicuous by their absence. If an author writes a regular column, at best the column will get blanket entry. Given the heterogeneity most columns embrace within a broad focus, such indexing hardly counts as meaningful.

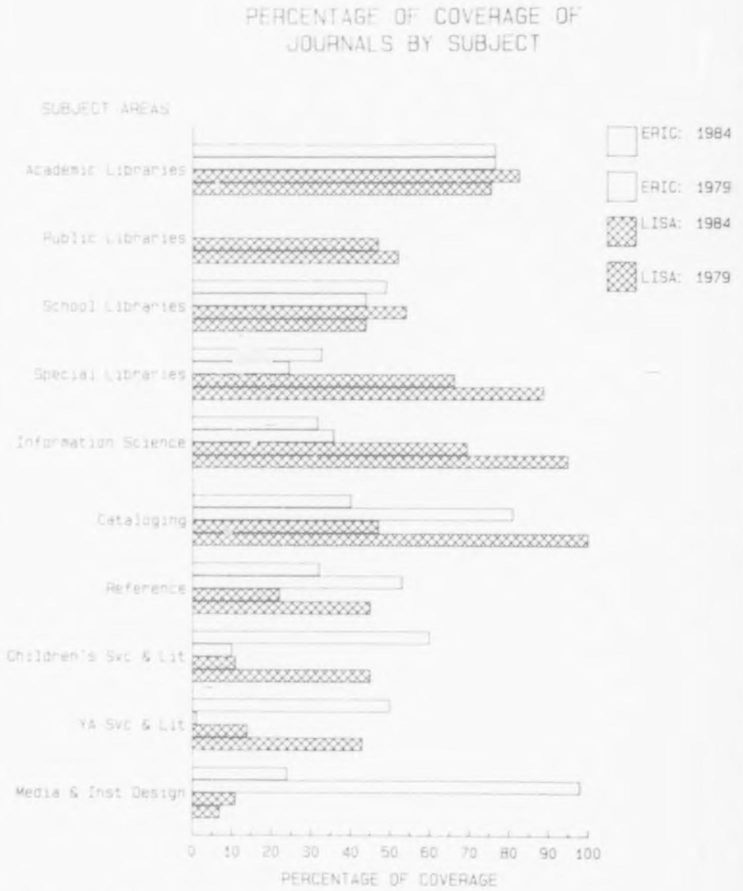
Library Literature can be expected to change this picture somewhat as it grows. Library Literature does, for example, include some of the more substantial state and regional journals. It also lists many books and analyzes a number of collections. It usually does not analyze columns separately, but makes a blanket record on the assumption that columns have a unifying theme. This practice can lead to such ironies as Patty Campbell's regular column in *Wilson Library Bulletin*, "The Young Adult Perplex," being fully analyzed online by the general-interest database, *Magazine Index*, but not, as she puts it, by "Wilson, my own folks."

Library Literature will at the same time have a high proportion of unique entries because its coverage is so much more comprehensive than either ERIC or LISA.

Articles may more likely be indexed than other publication formats, but some articles are more likely to be indexed than others. Table B shows clearly the greater coverage by Library Literature of all types of periodicals and its more complete indexing within that coverage. The table also shows the almost complete absence of foreign journals from ERIC.

In preparing Table B, adjustments were made to compensate to some extent for the newness of Library Literature and the slowness of LISA. The percentage of coverage for Library Literature was computed using only those 1984 issues that they received after they began indexing

Figure 1



ERIC indexed no public library journals included in this study in 1984 or 1979.

online. Similarly, because LISA is so slow, when LISA did not index the last three issues of 1984, the articles in those issues were not included in computing the percentage of coverage for 1984.

Occasionally LISA would index the entire issue of a journal rather than the individual articles if the issue had a single theme; this indexing was not included since the focus is on individual articles in this table. These adjustments result in a truer picture of the coverage of particular journals. Adjustment was not made in the other tables to allow for LISA's slowness. As a general rule, LISA figures for 1984 suffered because of the slowness of the indexing but benefited from the international coverage.

Table C, which shows the percentage of unique citations in ERIC and LISA, amplifies Table B. There is obviously considerable overlap between the two databases, but many articles are listed in only one. Again, this is a picture that the growth of Library Literature will change significantly. It can be expected to have a high proportion of unique citations and both ERIC and LISA will have lower.

In compiling the tables showing coverage by subject, publisher, date of beginning, and circulation (Figures 1-5), statistics from Library Literature were not included. This is regrettable, but the data available were too limited and too spotty to give valid results. On the other hand, Library Literature's absence is less important than it might seem. We already know that it is more comprehensive in its coverage in every aspect of librarianship; its main difference lies in its indexing.

Subject approaches

As far as subject coverage is concerned, ERIC and LISA appear to be becoming more similar (see Figures 1 and 2). Specializations are difficult to identify, aside from a few obvious ones, like LISA's complete lack of interest in media and instructional design, and its somewhat greater strength in information science. It is not safe to go too far beyond this, however, because much of LISA's seemingly greater coverage is because it is two-thirds again as large as ERIC.

Sheer numbers would mean that LISA had more citations in reference and academic libraries. Even an area like public libraries that ERIC supposedly considers outside of its scope clearly receives some coverage. ERIC may not index the specialized journals in public librarianship, but it will consider including articles on public libraries if they are published in journals it is already indexing.

The inclusion or exclusion of a single journal can make all the difference to the coverage of a particular subject when that subject has only one journal. Because ERIC does not index either the *Government Publications Review* or the *Journal of Library History*, its coverage in those areas is nonexistent when looked at from the point of view of the journals, and low generally. Neither ERIC nor LISA includes the *Newsletter on Intellectual Freedom* so neither can offer much on censorship.

The jump in ERIC's coverage of young adult literature and services between 1979 and 1984 is solely attributable to its decision to resume the indexing of *Top of the News* (now *Journal of Youth Services in Libraries*) which it was not doing in 1979.

Several anticipated conclusions proved true. Journals published by ALA are indexed more thoroughly than journals on the same subject not published by ALA (Figure 2). Establishment journals are more likely to be included in a database and indexed more thoroughly than alternative journals. Older journals are better covered and indexed than newer ones (Figure 3).

Another unsurprising correlation is that between circulation and thoroughness of indexing. The anomaly in Figure 5, indicating thorough indexing for the journals of lowest circulation, is an eccentricity that resulted from the fact that there are only two journals in that category. One of those two was *Library and Information Science Research*, a journal whose claims to thorough indexing are obvious.

The above description and tables indicate the relative strengths and weaknesses of the online databases in librarianship, but they are composites of a hundred details. Perhaps the most important feature that synthesis has obscured has been change.

The online databases, like any continuing bibliography, revise their policies constantly to adapt to changing conditions. Unlike print bibliographies or indexes, the user searches all entries at once; the database contains citations entered under different rules and the ERIC of 1967 is very different from the ERIC of 1985. ERIC's decision to reduce the indexing of English-language journals from outside the United States shows clearly when 1979 and 1984 information is compared. Not reflected in these tables is the recent decision of LISA to include less nonarticle material.

Overall, the coverage of the online databases bears only a passing resemblance to the citation patterns of authors in librarianship and information science. In 1968, Thompson Little's citation analysis of the literature of library science found a low use of journals compared to the volume of periodical literature, low use of literature outside the field, and a high concentration of citations to a small number of journals.

Citation studies done in the intervening years do not challenge these impressions. Such evidence suggests that writers would be grateful for coverage of core journals, of books, and of other nonarticle material, that is considerably more thorough than is presently available.[12]

Subject access & indexing

Because resources are limited, efforts at bibliographical control often stop with main entry listing, but for many purposes subject access is equally if not more important. Different methods may be used to create such access: a numerical classification scheme, Library of Congress subject headings, an indexing language, or the manipulation of subject expressive information already present, such as title words.

The three online databases in librarianship all use an indexing language and offer the additional capability to search on terms used in titles. In ERIC and LISA one can search on terms in abstracts and on title enhancements in Library Literature.[13]

In general terms, indexing serves "to identify and locate specific items in a collection, or information contained in those items."[14] Beyond that broad purpose, the different interested parties have varied expectations and viewpoints.

Librarians tend to treat indexing as an exercise in identifying two or three terms that will describe the totality of a publication. Information scientists, on the other hand, tend to view indexing as a means to identify specific information within documents. They usually assign many terms per document, hoping to avoid wasteful duplication in research. Obviously, the approach of the information scientists is more than coincidentally related to the economics and constraints of computer technology, which has been an integral component of their field. For librarians the relationship is to the card catalog which has dominated their historical experience.

The indexing language

A central—if not *the* central—element in indexing is the indexing language, often presented in online systems in the form of a thesaurus that shows the terms used and defines synonymous and hierarchical relationships. An indexing language or thesaurus converts the natural language used by authors or requestors into a common term or phrase, thereby expediting the matching of information need with publication.

The characteristics of the language profoundly influence both indexing and retrieval.[15] If, for example, the level of specificity of the language is low, the indexer cannot index with any degree of precision. If indexing terms are vaguely defined and overlapping in meaning, the indexer may use one term and the searcher another for the same concept. If the entry vocabulary is inadequate, the indexer may omit a concept, thereby precluding the retrieval of the document on appropriate occasions.[16]

Creating an indexing language is demanding and complex, both intellectually and economically. The ANSI standard on the subject states the obvious:

> If the system language is to be effective and efficient, it must be easily usable to describe whatever is being indexed or sought. Unless the interests and linguistic habits of potential users of a retrieval system are understood and given due consideration during the construction of the thesaurus, the resulting system language will not correspond to their needs of retrieval.[17]

Once there is an indexing language to apply, documents can be indexed. The process of indexing consists of the identification and collection of material to be indexed, the selection and "raw" statement of descriptive terms, and the standardization of descriptive terms into the system language. Its complement [illegible] retrieval: the perception of information need, the selection of "raw" statement of terms expressing a query, the standardization of query language into the system language, and the matching of indexing terms with query terms.[18] What makes the interaction so complex is that each individual involved—author, publisher, indexer, and user—brings to it different perspectives, perceptions, and language habits.

Indexing and retrieval bristle with potential pitfalls and opportunities for failure, any one of which may prevent an interested reader from finding a relevant document. Indexers may fail to interpret authors cor-

Table B
Percentage of Coverage of Articles by Journal

Journal	1984 ERIC	1984 LISA	1984 Library* Literature	1979 ERIC	1979 LISA
Alabama Librarian	0	0	0	0	0
American Libraries	39	53	67	43	56
Australian Library Journal	0	67	0	26	79
Bay State Librarian	0	0	0	0	0
Bibliotekar'	0	11	63	0	14
Der Bibliothekar	0	30	0	0	57
Bibliotheksforum Bayern	0	0	0	0	47
Buch und Bibliothek	0	66	80	0	41
Bulletin des Bibliothèques de France	0	87	72	0	88
Bulletin of the Medical Library Association	0	78	100	0	98
Canadian Library Journal	65	84	100	79	71
Cataloging and Classification	0	47	100	—	—
Catholic Library World	67	89	100	60	0
College & Research Libraries	74	72	95	83	59
Drexel Library Quarterly	100	100	100	74	96
Emergency Librarian	0	18	100	0	0
Horn Book	93	0	100	32	0
IFLA Journal	0	73	100	0	100
Illinois Libraries	0	0	100	0	0
Information Technology & Libraries	63	94	100	53	85
Instructional Innovator	35	0	0	100	0
Interracial Books for Children Bulletin	59	0	100	0	0
Journal of Academic Librarianship	77	92	100	65	97
Journal of Education for Library and Information Science	54	69	93	100	95
Journal of Information and Image Management	0	4	100	0	36
Journal of Information Science	0	92	100	0	97
Journal of Library History	0	72	100	0	73
Journal of the American Society for Information Science	83	93	100	72	98
Law Library Journal	0	0	98	0	65
Library and Information Science Research	95	100	100	0	79
Library Association Record	0	86	100	20	73
Library Journal	40	81	100	62	51
Library Quarterly	91	81	75	42	53
Library Resources and Technical Services	82	64	100	82	100
Library Trends	56	27	100	74	57
Nachrichten fur Dokumentation	0	66	100	0	80
Newsletter on Intellectual Freedom	0	0	83	0	0
North Carolina Libraries	0	0	100	0	0
Phaedrus	0	0	100	0	0
Public Libraries	0	58	77	0	25
Public Library Quarterly	0	86	100	0	100
Reference Librarian	37	4	0	—	—
Reference Services Review	0	32	100	0	0
Revista Interamericana de Bibliotecologia	0	0	0	0	8
RQ	70	66	100	100	84
Rural Libraries	0	0	100	—	—
Scholarly Publishing	0	0	100	0	13
School Learning Resources	0	0	0	—	—
School Library Journal	65	75	100	64	45
School Library Media Quarterly	68	88	0	90	43
Schulbiblioteck Aktuell	0	55	0	0	42
Science and Technology Librarian	0	13	93	/	/
Show-Me Libraries	0	54	94	0	0
Southeastern Librarian	0	0	100	0	0
Special Libraries	83	89	0	67	98
Top of the News	70	38	100	9	83
Unabashed Librarian	0	0	84	0	0
Voice of Youth Advocates	15	4	100	0	0
Wilson Library Bulletin	68	77	100	52	94
Zeitschrift fur Bibliothekswesen und Bibliographie	0	47	0	0	100
Zentralblatt fur Bibliothekswesen	0	52	90	0	59

* The results for Library Literature are skewed because such a short period of indexing was involved

rectly; they may not translate a concept correctly into the indexing language; the language itself may fail them. Users may not be able to translate their needs into the indexing language; even if they can, they may still not be able to use the database because of other problems.

Three languages for librarianship

ERIC, LISA, and Library Literature all have controlled vocabularies, but the three indexing languages are very different.

ERIC uses the hierarchical ERIC Thesaurus[19] that consists primarily of one- and two-word uninverted descriptors. Thesaurus terms are enhanced by identifiers, terms similar in structure to thesaural entries, but usually representing either a geographical location or a new concept. A simplified version of weighted indexing, distinguishing between major and minor descriptors and identifiers, permits topics treated in greater depth to be identified.

In ERIC as many as 11 descriptors and five identifiers may be assigned to an individual record, of which up to five descriptors and three identifiers may be designated major.

LISA uses chain indexing based on the classification scheme by which the abstracts are classified. Records indexed before 1985 display with long descriptor strings because it tried to indicate the context of each term. A recently implemented program, however, now suppresses the largely redundant terms that formerly appeared within parentheses and provided contextual information. LISA's descriptors are, therefore, now very similar in appearance to ERIC's, although they are in fact the same indexing LISA has always used.

LISA's printed thesaurus (*LISA Online User Manual*, 2d ed., Oxford, England, Learned Information Ltd., 1987) comprises 6000 descriptors, not an exhaustive list but a substantial core listing of the most important and most widely used terms.

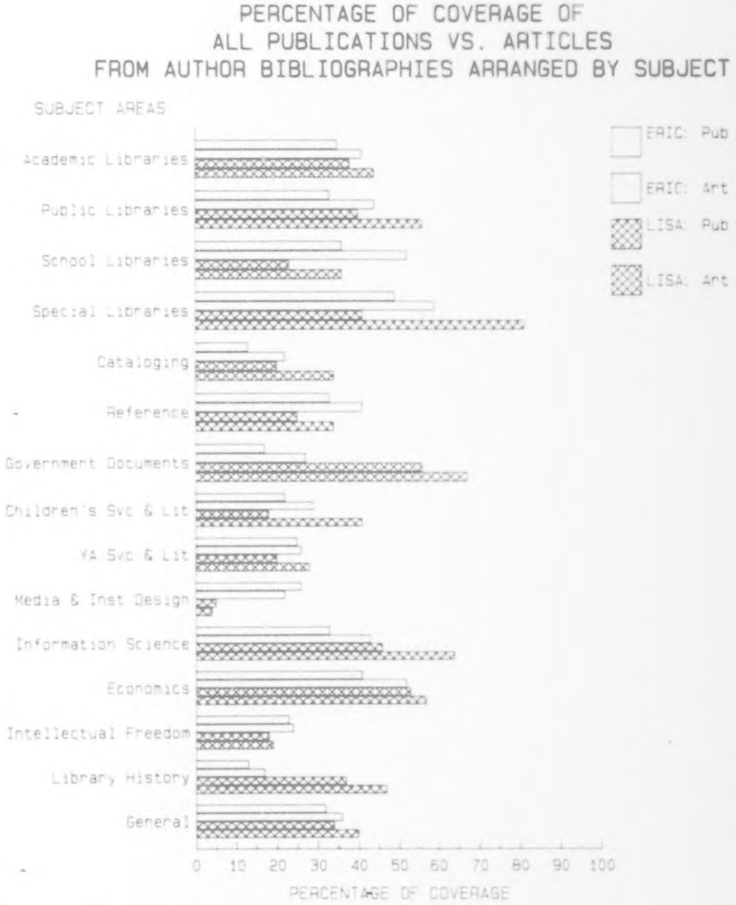
Library Literature's language is based upon the *Library of Congress Subject Headings* (LCSH), but the basic LC vocabulary has been considerably extended by more specific headings, following the typical LC inverted and subdivided pattern. Typically, only two or three indexing terms are assigned.

Authors evaluate indexing

To help them evaluate the quality and effectiveness of the indexing of their works, the following questions were sent to the authors who participated in this study: Are all important topics adequately represented by descriptors? In other words, have relevant index terms been omitted? Is a descriptor used that promises something that is not there or is the descriptor ambiguous? Within a database, is the same term used to describe the same phenomenon? Are the terms used too specific? too general? Is the terminology outdated or too new to be generally accepted? If the methodology is distinctive, has a descriptor been assigned that indicates the study's methodology?

Responses of the authors surveyed indicate that lack of specificity is probably the biggest problem in the indexing of librarianship. Again and again authors in all subject areas would note that a descriptor was too general and suggest a more specific term. It is easy to understand such dissatisfaction when the term "Cataloging" is used for an article on subject cataloging, "Films" for an article on young adult filmmaking, and

Figure 2



Pub means percent of all publications indexed
Art means percent of all articles indexed

"Foreign Countries" for one on Third World librarians. "Political Aspects" might describe policy analysis, accountability, or revisionist history. Very broad terms (Published Materials, Children, Higher Education, Problems, and Organization and Administration) were frequent.

Good indexing mandates that a document should be indexed at the level of specificity of its content, i.e., if it is about medical libraries, it should be indexed with "Medical Libraries" and not "Special Libraries" or "Libraries," but it is clear that the indexing languages do not always permit this rule to be followed. Even when they do, indexers may still not do it.

Some might dismiss those reactions as the pedantic animadversions of narrow-minded specialists. There is no denying that the authors are specialists who appreciate the finer nuances of their areas of interest. Their perspective is also necessarily different from that of the indexer who indexes in a broad context rather than treating each item as unique and individual. But the basic point that documents should be indexed as specifically as their content permits remains valid. It is corroborated by the known preference of users for highly precoordinated terms, that is, the indexer uses terms that bring together the relevant concepts: "School Libraries," not "Schools" and "Libraries."

Table C
Percentage of Unique Articles*

	1984		1979	
	ERIC	LISA	ERIC	LISA
American Libraries	11	17	19	33
Canadian Library Journal	6	19	19	16
Catholic Library World	32	8	—	—
College and Research Libraries	8	6	34	5
Information Technology and Libraries/Journal of Library Automation	3	35	0	38
Journal of Academic Librarianship	0	17	6	34
Journal of Education for Librarianship and Information Science/Journal of Education for Librarianship	31	46	5	0
Journal of the Association for Information Science	4	13	0	27
Library Journal	7	49	35	21
Library Quarterly	18	14	15	39
Library Resources & Technical Services	9	9	0	19
Library Trends	59	21	18	0
RQ	23	23	18	0
School Library Journal	29	29	44	22
School Library Media Quarterly/School Media Quarterly	29	29	57	10
Special Libraries	11	17	2	33
Wilson Library Bulletin	11	55	8	50

* Because Library Literature covered such a small segment of the literature, statistics on the number of unique entries it had were not compiled

Inaccuracy

Another persistently noted problem was inaccuracy. A less than correct term might be applied because the language lacked a more appropriate choice. Some examples of less correct terms are the use of "English Instruction" for an article on booktalking, "Acquisitions" for collection development, and "International Librarianship" for international library relations. In such cases we are reduced to hoping that users share the same linguistic confusion and that their language approximates the indexing terms used.

Such happy coincidences are not possible when the indexing does not match the contents of the article. Someone interested in bibliographies is going to be very disappointed in one article on continuing education that that term will retrieve; the article says nothing about bibliographies as such. Another article actually about public libraries was assigned the descriptor "University Libraries."

One author was very blunt about the descriptor "Vocational Guidance" used with her article: "If I wrote about or for the purpose of vocational guidance, I am not aware of it." But these examples are only one half of the problem.

There are sins of omission as well as those of commission. Any number of times authors noted that important concepts were simply not described in any way. One lamented, "Incredibly the headings [censorship and textbooks] wholly overlook the central topic, CREATIONISM."

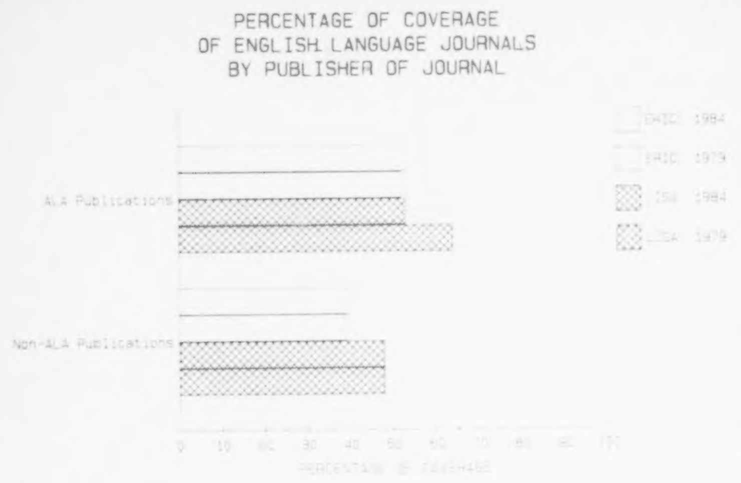
Two authors in the young adult field noted the absence of the concept of programming. The indexers' muddled attempts (Library Services, Communications, and Cultural Activities) don't come close to the field's own terminology. In such cases there is no possibility of retrieval unless the title or abstract happens to include the concept and a free-text search is performed on these fields.

Almost invariably missing was a descriptor showing the approach or orientation of the article. An author who wrote a historical overview felt that should have been brought out in the indexing in some way. So did one who often writes with a management orientation and another who has published several user studies. Articles forecasting the future have sometimes been described with the descriptor "Futures of Society" in ERIC or "Future Development" in LISA, but both are erratically applied and difficult to identify as an appropriate term. Library Literature lacks any such term.

The databases also seem to have a particular problem with certain kinds of material. Authors of very broad, general pieces, the kind intended to be thought provoking, were often unhappy with the terms assigned to their publications. At the other extreme, very technical articles in some areas were among those where the indexing was the most criticized. It depended very much upon the field, whether a technical article was well or badly indexed. If the indexer had an adequate understanding of the field and the indexing language provided the necessary specialized terms, an author was satisfied. These conditions were, for example, true of ERIC's indexing of instructional technology. Authors in information science and the economics of librarianship, on the other hand, were among the most critical.

Many of the problems identified are inherent in the nature of librarianship. In 1968 Hines described the major vocabulary problems in librarianship as the speed with which new terms are introduced, the nature of class headings, and the uncertain terminology of the field.[20] His observations are valid today. Librarianship is an applied field and its constituent components look to different disciplines and contexts for their intellectual structure and language. The in-

Figure 3



dexing languages must somehow rationalize the disparate vocabulary. To the extent, moreover, that librarianship can be placed in any one area, it belongs in the social sciences. The social sciences have never been noted for the precision or clarity of their language.

Having described the problems with indexing, it is only fair to describe its successes. Even though some authors found indexing terms inadequate, there were many occasions on which they were satisfied with the indexing. The question is, "Is it acceptable that on a significant number of occasions publications within a database will not be retrieved when they would be appropriate, or will be retrieved when they are not useful, because the indexing is inadequate?"

The "best" database?

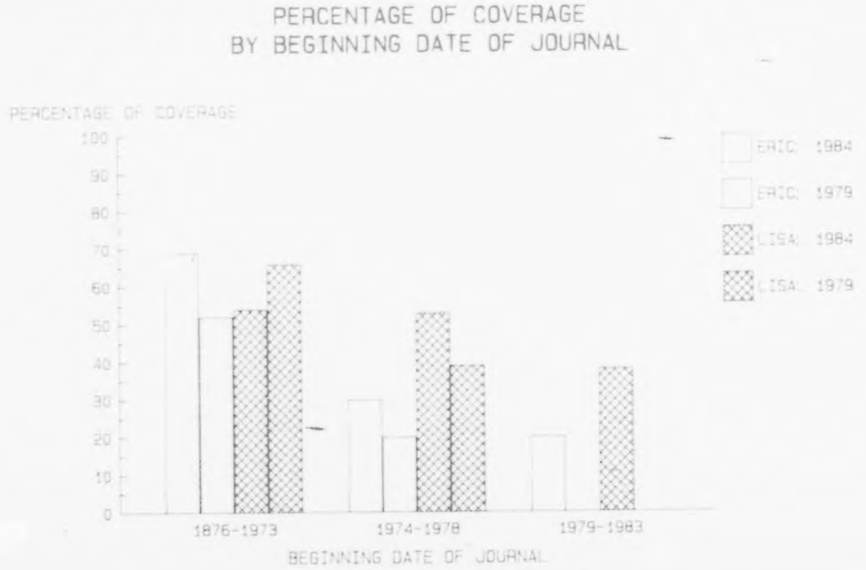
The question, "Which is the best online database in librarianship?" has no easy answer. Each has strengths and weaknesses, so a searcher must find the best match of user needs and database strengths.

ERIC offers a selection of English-language materials mostly published in the United States. It is weak in public librarianship and information science, but strong in all areas of librarianship related to formal education or to children and youth. It updates monthly and is quite current. Although its indexing language that relates to librarianship would benefit from the addition of more specific terms, its structure is well adapted to online searching. The possibility for subject expansion online and the distinction made between major and minor topics are assets. Searchers appreciate the existence of a printed thesaurus because it makes planning a search much easier and the ability to select sets directly from the subject expansion display make selection of synonymous or related descriptors easy to achieve.

LISA is a larger database than ERIC when only librarianship is considered. It includes much foreign-language material and is strong in all areas of librarianship with the exception of media. Its indexing is now better adapted to online searching than its previous system and its *User Manual* includes a printed thesaurus of some 6000 terms. LISA is extremely slow to enter materials.

Library Literature presents the most unequivocal picture. Its coverage is excellent, far superior to either of the other two databases in all areas of librarianship. Having authority control for authors is a major plus. Its disadvantages lie in its indexing language and procedures which take little advantage of the online environment. The LC subject heading structure is relatively cumbersome for searching, and having the thesaurus only available online is a disadvantage. Even more serious is the continuation of a practice developed in the years of compiling the printed-index: applying only two or three terms to each entry. This simply does not of-

Figure 4



fer the depth of indexing that either ERIC or LISA does. The absence of abstracts with the possibilities of free-text searching they provide further reduces subject access.

Because online searching in libraries is not free, whether the library or the user is the one who pays, price may well influence the choice among databases, if not determine it. LISA, at $75 per hour, is approximately twice as expensive as either ERIC or Library Literature.

The needs of librarianship

When the perspective changes from that of the individual user to that of the profession, the considerations of scope and indexing have a different context. The focus is not upon the relatively limited needs of any one user, but upon what is required for the good of the whole. The question now becomes, "Do the three online databases collectively provide adequate bibliographical control for the needs of the profession?"

What do we need? Surely most would agree that a current awareness service, a complete record of publications with subject access, and an abstracting service are necessary. But do we have them?

In 1968 the SUNY-Albany conference on the bibliographical control of the literature of library science made several recommendations for the improvement of *Library Literature*, the only bibliographical service of any significance at the time. They recommended that *Library Literature* expand its coverage to include all important contributions to librarianship plus relevant material in related fields, that it be fully international, and that it improve its indexing vocabulary. Several of these suggestions and the concerns they reflect are still valid, although they are equally if not more applicable to ERIC and LISA.[21]

Coverage with adequate subject access remains partial. Many worthwhile publications in librarianship are escaping the bibliographical net. This is particularly true of foreign-language material and that which is published as something other than an article. Relevant material from related fields is virtually ignored.

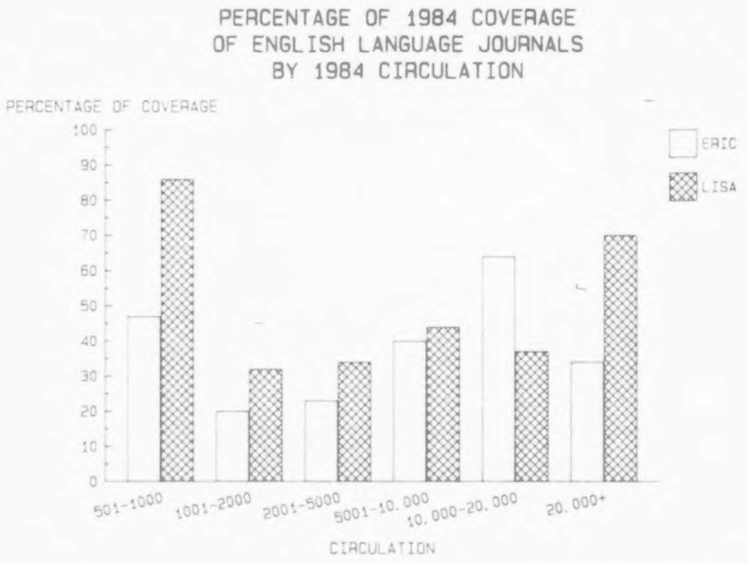
The ideal solution would be the creation of a national information center with responsibilities comparable to those the National Library of Medicine has for medical literature. Less than ideal but more feasible is to work within the existing system to persuade the three services to expand their coverage and publishers to be more systematic in providing the services with copies of their publications.

The entry and indexing processes of all three databases could be substantially improved. It may be obvious, but indexers need to work more carefully to avoid careless typographical errors. They need to read more attentively to avoid missing important concepts. Those systems without authority controls would greatly benefit from creating them.

The indexing language of all three databases would bear careful scrutiny. Specialists should participate in vocabulary revision. As Lancaster noted, "A controlled vocabulary is likely to be most effective if it has *literary warrant* and *user warrant*, if it is built up from the language of the documents of a subject field and from the terms employed by users . . . . Vocabularies produced solely by the committee approach are likely to be less effective."[22] Particular care needs to be given to achieving greater specificity.

Many less than ideal practices are the result of economic constraints, but they remain concerns to be recognized and addressed. Substantial improvement might be effected at little or no cost if authors were involved in the indexing process. Many journals already request abstracts from them. Why not have them suggest indexing terms, as is done with dissertations and journal articles in some sciences and applied sciences?

Figure 5



"There's no time like the present," goes the old adage. It certainly applies here. The databases of the information profession should serve as models; instead they are examples of a mixture of positive and negative elements. We have not taken advantage of the technology to control the literature of our own profession. We get the same partially satisfactory results we always got—faster and faster.

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1. A good summary is Jeff Pemberton, "The Inverted File: Faults and Failures—25 Ways That Online Searching Can Let You Down," *Online*, Sept. 1983, p. 6-7. Only six of his 25 problems are caused by human error.

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3. Lancaster, F.W. *Information Retrieval On-line*. Melville Pub., 1973. The recall ratio is the number of relevant documents retrieved by the system divided by the total number of relevant documents contained in the system times 100. The precision ratio is the number of relevant documents retrieved by the system divided by the total numoer of documents retrieved by the system times 100.
4. Markey, Karen, Pauline Atherton, & Claudia Newman, "An Analysis of Controlled Vocabulary and Free Text Search Statements in Online Searches," *Online Review*, 1980, p. 225.
5. A notable exception is Carol Tenopir, "General Literature Online: *Magazine Index* and *Readers' Guide*," *LJ*, May 1, 1986, p. 92-93.
6. DIALOG, ORBIT, and BRS were all used to search ERIC and LISA. To some extent this was fortuitous, but in some cases necessary, because the command language and programming provided by each system offer different capabilities. All Library Literature searching was done on Wilsonline.
7. The expand command produces a listing of approximately 12 terms in alphabetical order. It may be executed in the basic index or in one of the special index fields such as the author index. It is useful in picking up variant spellings and suggesting other forms of a word that might also be employed to search. On DIALOG the command is Expand, on ORBIT and Wilsonline Neighbor, and on BRS Root.
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9. This is quite different from the findings of Mary R. Turtle & William C. Robinson, "The Relationship between Time Lag and Place of Publication in Library & Information Science Abstracts and Library Literature," *RQ*, Fall 1974, p. 28-31. It should also be noted that not all journals with a 1984 date on the cover actually appeared in 1984. Journals are often behind and if a Winter 1984 issue is not published until June 1985, obviously the database cannot enter it until June 1985.
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20. The State University of New York at Albany, Conference on Bibliographic Control of Library Science Literature, April 19-20, 1968. ERIC Document 050 737. Short summary, p. 11.
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22. Lancaster, p. 223.

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LIBRARY JOURNAL

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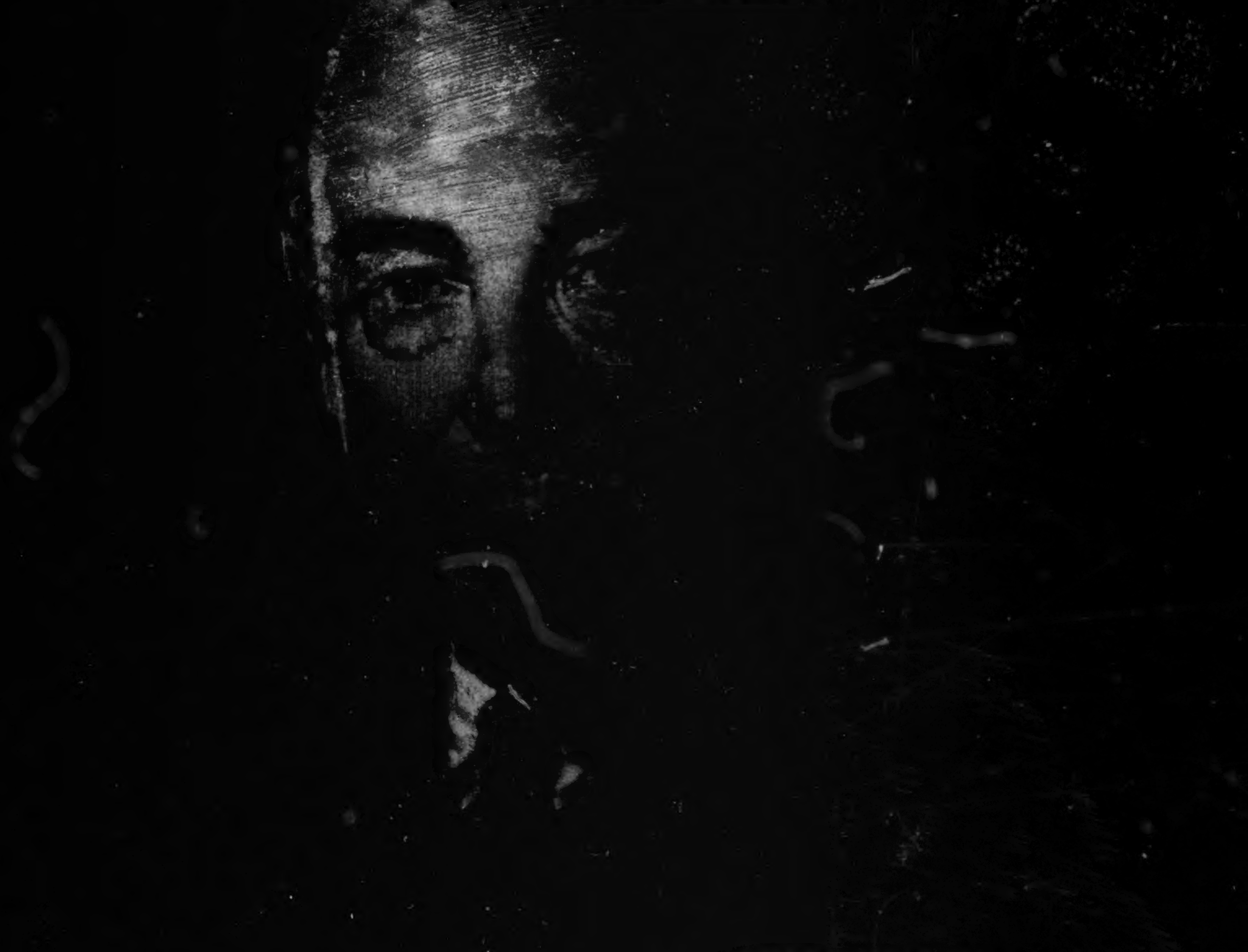
Sex, Church, and Censorship
The Upswing Goes On: Placements & Salaries
Murphy, Parkinson, Peter, and Libraries
California Recruits New Librarians



AFTER THE FALL:
Religious Books 1988

C. S. Lewis

VOL. 113 No. 17

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Author C.S. Lewis is well represented in William Griffin's religious books feature, "After the Fall: Religious Books 1988," page 23. The painting is by artist David Grove of San Francisco

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Some North Carolinians tell their true views about censorship and sex

Censorship, Church, and Sex

By Ray L. Carpenter

"THE LOCAL LIBRARY should not remove books from its shelves just because they criticize churches and religion. Which position would you say is closest to your own: Strongly Agree, Agree, Disagree, Strongly Disagree?" In spring 1987, this question was asked of a statewide random sample of 497 adults in North Carolina, along with other questions about civil liberties issues, most of them about sex.[1]

Seventy percent of the respondents replied "favorably" to the above question—they said the library should *not* remove books critical of churches and religion (17 percent "strongly agreed," 53 percent "agreed"). How, we asked, do these people differ from those who say that the library should remove such books? These differences can be categorized in terms of various attitudes and actions focused on civil liberty issues and on some aspects of information about sex, drugs, and alcohol. Our analysis is quite simple: sort out the people who are "pro" library in that they agree that books critical of churches and religion shouldn't be removed, and compare them with people who disagreed, who in effect support censorship of such materials.

> *69 percent of censors consider themselves to be "born again"*

The former group is depicted in the column labeled "Defenders (DEF)," the latter in the column "Censors (CENS)."

How often do you attend religious services?

	DEF	*CENS*
Once or more a week	40%	53%
Once a month or more	41	[illegible]
Once a year or never	19	15

Would you say you have been "born again"?

	DEF	*CENS*
Yes	54	69

When it comes to politics, how do you think of yourself?

	DEF	*CENS*
Liberal	19	13
Conservative	31	28
Moderate	40	38
Other	10	21

The defenders of the library against removal of books critical of religion and churches are less likely to attend religious services than those who would act as censors, and they are comprised of fewer "born again" Christians. They also consider themselves more liberal, politically. However, the differences are mitigated by the norms for both groups—most attend religious services once or more a month and half of both groups are "born again."

Did you know of a new state law regarding distribution of obscene materials?

	DEF	*CENS*
Yes	67%	49%

Are your community standards for the sale of sexual material too strict, about right, not strict enough?

	DEF	*CENS*
Too strict	16	14
Not strict enough	23	42
About right	61	44

Any adult who wants to have pornographic materials should be allowed to.

	DEF	*CENS*
Strongly agree and agree	80%	55%

Ray L. Carpenter is a Professor, School of Library and Information Studies and Member, Institute for Research in Social Science, University of North Carolina at Chapel Hill

	DEF	CENS
Pornographic materials should be protected by freedom of speech and freedom of press.		
Strongly agree and agree	58%	46%

As a group, library defenders are better informed than censors about the state obscenity law; are far more permissive about adult use of pornography; and are stronger supporters of freedom of speech and press where pornography is concerned. Nearly double the proportion of censors over defenders feel that local standards aren't strict enough.

	DEF	CENS
Do you feel that public schools should or should not include sex education in their program?		
Should	93%	82%
Considering the high pregnancy rate among unwed school-age females, contraceptive information and products should be made available in schools.		
Strongly agree and agree	64	49
Information about preventing the spread of AIDS should be included in school health classes.		
Strongly agree and agree	98	97

Both groups strongly support public school education about sex and about AIDS. They disagree more about the distribution of contraceptive information and products. Below we can see that the magnitude of differences is considerably greater when asked about "graphic" materials.

	DEF	CENS
Are these materials obscene: Materials depicting nude men and women?		
Yes	43%	71%
Materials depicting sexual activities between a man and a woman?		
Yes	57	75
Materials depicting sexual activities between people of the same sex?		
Yes	82	91

Depicting sexual activity that is not identified in the context of "education" seems far more likely to be viewed as obscene by the censor group, but is also obscene to a large proportion of the defenders, especially where homosexual activity is depicted.

> *80 percent of defenders agree that any adult who wants to have pornographic materials should be allowed to*

	DEF	CENS
In the past year have you seen an X-rated movie?		
Yes	23%	24%
In the past year have you read a magazine you considered pornographic?		
Yes	29	19
Pornography can improve the sex lives of people who view it.		
Strongly agree and agree	23	19
Violent pornograhy violates women's civil rights.		
Strongly agree and agree	68	64
Violent pornography may lead people who view it to commit rape.		
Strongly agree and agree	74	86

About a fourth of all respondents have seen an X-rated movie and nearly 30 percent of the defenders group has read a pornographic magazine in the past year. About the same proportions feel that pornography can improve one's sex life. However, two-thirds of both groups also see *violent* pornography as a violation of women's civil rights. Nearly everyone sees pornography as possibly leading users to commit rape.

The civil liberty aspect of this study is augmented by the response to a couple of quite different questions.

	DEF	CENS
Do you agree or disagree that some form of drug testing should be required for all health care professionals?		
Agree	77%	91%
A group of Nazis has the right to stage a rally in my community.		
Strongly agree and agree	36%	13%

The general pattern of differences between the two groups is further shown in responses to these two questions. Censors are more inclined than defenders to require drug testing of health care personnel but even most defenders favor this action. Defenders are substantially more favorable than censors toward permitting a Nazi rally, but only a third support this right.

What it all means

Community support against public library censorship may be related to several demographic and attitudinal factors. The majority of people who agree that the public library should not have to remove books criticizing churches and religion are church-going, political moderates or conservatives, although less inclined to the fundamentalism of the "born again" than those who would favor removal of such books.

The defenders of books critical of church and religion are more likely than the censors to support freedom of access to obscene or pornographic materials and to support instruction in contraceptive methods. Defenders are less likely to view heterosexual graphic materials as obscene but are very like the censors in viewing violent pornography as a violation of civil rights.

The profile of defenders against censorship is of a middle class, well-educated, and *generally* tolerant majority. It may mean that allies of the public library are more often found than not, the frequency of censorship attempts notwithstanding. Perhaps the advances of public education and of more tolerant religious teaching enhance the political climate of public libraries that often is so vulnerable to community pressures.

References

1. The data in this report are from the spring 1987 Carolina Poll conducted by the Institute for Research in Social Science and the School of Journalism, University of North Carolina at Chapel Hill.

In 1987, the average beginning salary grew by $1,373 (7%) over 1986

Placements and Salaries 1987:

The Upswing Continues

By Carol Learmont & Stephen Van Houten

FIFTY-FIVE of the 60 eligible schools responded to all or part of the questionnaire for this 37th annual report on placements and salaries of graduates of American Library Association–accredited library school programs. One Southeastern, one Southwestern, one Western, and two Canadian schools did not participate.

In 1987, the average beginning-level salary was $22,247, based on 1610 known, full-time, permanent professional salaries. Salaries for 1987 improved over 1986. For the fifth year the increase in the average beginning salary was higher than the increase in the cost of living. In 1987 it was 7% higher. The 1987 salaries increased at the rate of 7% compared to 6% in 1986, and 5% in 1985.

In 1987, the average (mean) beginning salary for women was $22,045, a 6% increase over 1986; for men, $23,013, a 7% increase. The median salary was $21,116 for all graduates; for women, $21,000; and for men, $22,000.

For new graduates with relevant

I Status of 1987 Graduates, Spring 1988*

	No. of Graduates			Not in Library Positions			Empl. Not Known			Permanent Prof. Placements			Temp. Prof. Placements			Nonprof. Library Placements			Total in Library Positions		
	Women	Men	Total	Women	Men	Total	Women	Men	Total	Women	Men	Total	Women	Men	Total	Women	Men	Total	Women	Men	Total
United States	2462	742	3314	237	81	321	517	169	788	1499	434	1938	154	45	199	55	13	68	1708	492	2205
Northeast	948	286	1323	66	24	90	242	76	406	580	167	748	48	16	64	12	3	15	640	186	827
Southeast	467	108	593	35	16	53	90	24	128	309	63	374	29	5	34	4	0	4	342	68	412
Midwest	616	197	815	80	29	109	133	46	179	364	110	476	22	6	28	17	6	23	403	122	527
Southwest	188	56	245	30	4	35	24	9	33	114	36	150	7	4	11	13	3	16	134	43	177
West	243	95	338	26	8	34	28	14	42	132	58	190	48	14	62	9	1	10	189	73	262
Canada	296	89	388	33	15	49	53	12	67	147	37	184	57	23	80	6	2	8	210	62	272
All Schools	**2758**	**831**	**3702**	**270**	**96**	**370**	**570**	**181**	**855**	**1646**	**471**	**2122**	**211**	**68**	**279**	**61**	**15**	**76**	**1918**	**554**	**2477**

* Includes placements undifferentiated by sex

IIa Placements and Salaries of 1987 Graduates—Summary by Region*

	Placements	Salaries			Low Salary			High Salary			Average Salary			Median Salary		
		Women	Men	Total	Women	Men	Total	Women	Men	Total	Women	Men	Total	Women	Men	Total
United States	1865	1162	314	1477	9500	13000	9500	44000	72000	72000	22217	23268	22440	21252	22000	21588
Northeast	709	455	106	561	10000	16000	10000	44000	45000	45000	23214	24248	23410	22750	23000	22800
Southeast	363	223	44	267	12600	13513	12600	36000	31000	36000	21556	20984	21462	20800	20500	20800
Midwest	459	285	86	372	9500	13000	9500	40000	38000	40000	20933	21856	21147	20000	21000	20000
Southwest	150	96	32	128	13500	17400	13500	34200	54500	54500	21155	24451	21979	20500	22500	21008
West	184	103	46	149	14000	16047	14000	40000	72000	72000	23783	25012	24162	22907	23200	23000
Canada	174	110	23	133	13575	15837	13575	35709	27149	35709	20224	–19526	20103	20362	20362	20362
All Schools	**2039**	**1272**	**337**	**1610**	**9500**	**13000**	**9500**	**44000**	**72000**	**72000**	**22045**	**23013**	**22247**	**21000**	**22000**	**21116**

* Includes placements undifferentiated by sex

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IIb Placements and Salaries of 1987 Graduates*

Schools	Placements	Salaries			Low Salary			High Salary			Average Salary			Median Salary		
		Women	Men	Total	Women	Men	Total	Women	Men	Total	Women	Men	Total	Women	Men	Total
Alabama	29	21	5	26	16000	13513	13513	31880	25000	31880	21294	19363	20922	20225	19800	20000
Albany	44	34	10	44	17000	19000	17000	33800	33000	33800	22349	23385	22584	21000	22500	22000
Atlanta	26	20	6	26	16500	21000	16500	26588	26000	26588	22173	22817	22321	22000	22000	22000
Brigham Young	37	23	12	35	15898	18000	15898	40000	29000	40000	23650	23267	23519	21600	23200	22000
British Columbia	15	0	0	0	0	0	0	0	0	0	0	0	0			
Buffalo	26	15	5	20	16000	16000	16000	31200	21900	31200	21670	19180	21048	21600	18500	21358
California (Berk.)	41	19	14	33	14000	20400	14000	34200	72000	72000	24098	30739	26915	23664	25000	24960
California (L.A.)	38	20	4	24	18500	18000	18000	40000	34452	40000	24900	23863	24728	24000	18000	24000
Catholic	27	22	3	25	16000	21500	16000	42000	32000	42000	25059	28375	25457	23760	31625	23899
Chicago	26	12	9	21	16731	18400	16731	28500	25000	28500	21725	21830	21770	21828	22000	22000
Clarion	21	20	1	21	16000	24600	16000	27570	24600	27570	21029	24600	21199	20000	24600	20000
Columbia	58	29	17	46	17650	21000	17650	38000	26000	38000	25022	23427	24433	25000	23000	24000
Dalhousie	12	10	0	10	16591	0	16591	27816	0	27816	21241	0	21241	19608		19608
Drexel	68	45	15	60	17000	16500	16500	44000	35000	44000	24457	23202	24143	22000	20600	22000
Emory	22	20	1	21	18179	23500	18179	31512	23500	31512	22957	23500	22983	22008	23500	22500
Emporia	16	9	4	13	17500	18500	17500	30000	36000	36000	22002	24250	22694	19800	19500	19800
Florida State	29	25	1	26	14000	21240	14000	35000	21240	35000	22872	21240	22809	21600	21240	21240
Hawaii	28	16	5	21	15000	17297	15000	31500	31500	31500	21822	23316	22177	20000	19000	20000
Illinois	64	41	18	59	16000	17000	16000	25000	37500	37500	19991	23031	20815	20000	22000	20000
Indiana	58	30	9	39	15600	14700	14700	31000	29000	31000	20355	21842	20699	19982	20800	20000
Iowa	32	15	8	23	16000	19000	16000	25200	24000	25200	19397	21188	20020	18900	20500	20000
Kent State	63	50	9	59	15000	16000	15000	39000	24000	39000	20787	21163	20844	18500	22000	19400
Long Island	34	24	3	27	18000	20528	18000	42000	28000	42000	26090	24466	25909	25000	24870	25000
Louisiana State	38	27	9	36	16700	15600	15600	26004	28000	28000	19752	21287	20135	19000	20000	19200
McGill	37	25	7	32	13575	15837	13575	30166	21116	30166	18914	18638	18854	18854	18854	18854
Maryland	41	30	6	36	17500	18798	17500	35000	32400	35000	23960	23292	23849	23000	21252	23000
Michigan	70	48	15	63	14000	14700	14000	38800	27000	38800	21300	21007	21230	20000	20500	20000
Missouri	16	10	4	14	9500	18000	9500	40000	27000	40000	20310	22000	20793	19000	21000	20000
North Carolina	28	22	6	28	16000	18600	16000	32000	27000	32000	19896	20542	20035	19100	19000	19000
N.C. Greensboro	33	0	0	0	0	0	0	0	0	0	0	0	0			
N.C. Central	9	7	2	9	18281	18300	18281	25260	30000	30000	20734	24150	21493	20000	18300	20000
North Texas State	46	28	7	35	16340	19500	16340	29000	37200	37200	20772	25753	21768	19416	21500	20400
Northern Illinois	17	12	2	14	16000	18000	16000	34250	38000	38000	21261	28000	22224	20000	18000	20000
Oklahoma	27	16	4	20	13500	17500	13500	25000	25000	25000	18938	22500	19650	17500	22500	17500
Peabody	29	0	0	0	0	0	0	0	0	0	0	0	0			
Pittsburgh	79	16	10	26	14000	16000	14000	28900	45000	45000	22214	27850	24382	21718	25000	24000
Pratt	17	3	4	7	22800	22000	22000	31500	40750	40750	25767	28888	27550	23000	22802	23000
Queens	15	9	0	9	19500	0	19500	28000	0	28000	24944	0	24944	25300		25300
Rosary	49	24	3	27	17000	13000	13000	39000	21828	39000	22975	17609	22314	22000	18000	21800
Rutgers	89	77	11	88	17496	17500	17496	43000	32000	43000	23524	23108	23472	22836	22080	22800
St. John's	9	6	2	8	10000	28000	10000	26070	39000	39000	20479	33500	23734	20000	28000	22803
Simmons	119	81	12	93	13000	16000	13000	33761	32000	33761	21731	21777	21737	21430	21000	21430
South Carolina	60	49	8	57	12600	16000	12600	35400	31000	35400	21474	19964	21262	21000	18000	20857
South Florida	26	20	3	23	16000	18500	16000	36000	23000	36000	22944	21300	22730	21000	22400	21420
S. Connecticut	37	29	6	35	12000	21000	12000	35500	42000	42000	22683	28633	23703	23485	25400	23500
S. Mississippi	16	12	3	15	15686	18100	15686	33595	21500	33595	21517	19367	21087	20500	18500	20500
Syracuse	25	15	1	16	18000	23000	18000	30000	23000	30000	21677	23000	21760	20500	23000	20500
Tennessee	18	0	0	0	0	0	0	0	0	0	0	0	0			
Texas	53	32	18	50	15000	17400	15000	34200	54500	54500	22236	24304	22980	21008	22500	22500
Texas Woman's	24	20	3	23	17500	22000	17500	30000	30670	30670	21737	24890	22148	21000	22000	21100
Toronto	39	33	5	38	17345	17345	17345	26395	27149	27149	21284	20211	21143	20739	18854	20739
Washington	40	25	11	36	16524	16047	16047	40000	26000	40000	24026	20817	23046	21500	20000	21000
Western Ontario	71	42	11	53	13575	16968	13575	35709	20362	35709	19928	19779	19897	19985	20362	20362
Wisconsin (Mad.)	34	19	7	26	15600	18000	15600	30520	25250	30520	20590	21313	20785	19200	20500	19569
Wisconsin (Milw.)	14	14	0	14	16800	0	16800	32541	0	32541	21889	0	21889	19800		19800

* Includes placements undifferentiated by sex

III

Placements by Type of Library*

Schools	Public			Elementary & Secondary			College & Univ.			Special			Other			Total		
	Women	Men	Total	Women	Men	Total	Women	Men	Total	Women	Men	Total	Women	Men	Total	Women	Men	Total
Alabama	10	3	13	5	0	5	5	2	7	3	1	4	0	0	0	23	6	29
Albany	7	4	11	18	0	18	3	3	6	4	2	6	2	1	3	34	10	44
Atlanta	3	2	5	5	0	5	6	1	7	6	3	9	0	0	0	20	6	26
Brigham Young	9	1	10	6	4	10	7	4	11	3	1	4	0	2	2	25	12	37
British Columbia	5	0	5	0	0	0	3	2	5	4	1	5	0	0	0	12	3	15
Buffalo	7	2	9	4	0	4	3	2	5	5	2	7	1	0	1	20	6	26
California (Berk.)	6	3	9	0	0	0	3	6	9	8	2	10	4	4	8	21	15	36
California (L.A.)	8	1	9	0	0	0	9	2	11	12	1	13	4	1	5	33	5	38
Catholic	3	1	4	4	0	4	3	0	3	13	2	15	1	0	1	24	3	27
Chicago	2	2	4	1	0	1	7	5	12	5	3	8	1	0	1	16	10	26
Clarion	4	0	4	13	1	14	0	0	0	3	0	3	0	0	0	20	1	21
Columbia	7	8	15	0	0	0	7	5	12	20	9	29	2	0	2	36	22	58
Dalhousie	5	0	5	2	0	2	2	0	2	2	0	2	1	0	1	12	0	12
Drexel	6	4	10	6	1	7	8	4	12	13	3	16	17	4	21	50	16	66
Emory	10	0	10	4	0	4	4	1	5	2	0	2	0	1	1	20	2	22
Emporia	5	0	5	1	0	1	4	4	8	1	1	2	0	0	0	11	5	16
Florida State	8	0	8	9	1	10	6	1	7	3	0	3	1	0	1	27	2	29
Hawaii	3	3	6	9	1	10	3	0	3	4	2	6	1	2	3	20	8	28
Illinois	25	2	27	1	0	1	14	11	25	3	1	4	5	2	7	48	16	64
Indiana	23	2	25	1	2	3	12	5	17	7	5	12	1	0	1	44	14	58
Iowa	9	1	10	2	1	3	7	8	15	2	2	4	0	0	0	20	12	32
Kent State	26	5	31	13	0	13	4	1	5	8	3	11	2	1	3	53	10	63
Long Island	4	3	7	15	2	17	4	0	4	5	1	6	0	0	0	28	6	34
Louisiana State	7	5	12	4	0	5	13	2	15	4	1	5	0	1	1	28	9	38
McGill	8	1	9	4	1	5	9	2	11	7	3	10	2	0	2	30	7	37
Maryland	7	1	8	3	1	4	5	1	6	18	3	21	1	1	2	34	7	41
Michigan	21	8	29	7	0	7	13	8	22	10	1	11	1	0	1	52	17	70
Missouri	5	1	6	2	0	2	3	3	6	1	0	1	1	0	1	12	4	16
North Carolina	7	2	9	3	0	3	6	4	10	5	0	5	1	0	1	22	6	28
N.C.Greensboro	7	1	8	17	0	17	1	1	2	3	2	5	1	0	1	29	4	33
North Carolina Central	2	0	2	1	0	1	2	1	3	2	0	2	0	1	1	7	2	9
North Texas State	8	5	13	11	1	12	6	2	8	8	2	10	0	0	0	33	10	43
Northern Illinois	6	1	7	2	0	2	3	1	4	3	0	3	0	0	0	14	2	16
Oklahoma	4	1	5	11	2	13	5	2	7	2	0	2	0	0	0	22	5	27
Peabody	6	1	7	5	0	5	7	4	11	5	0	5	1	0	1	24	5	9
Pittsburgh	11	4	15	3	0	3	3	1	4	8	1	9	19	26	45	44	32	76
Pratt	3	3	6	0	1	1	0	0	0	6	4	10	0	0	0	9	8	17
Queens	3	0	3	2	1	3	2	0	2	2	0	2	1	0	1	10	1	11
Rosary	12	3	15	7	1	8	7	1	8	5	0	6	2	1	3	33	6	40
Rutgers	32	7	39	14	0	14	13	1	14	15	2	17	4	1	5	78	11	89
St. John's	0	1	1	3	0	3	1	0	1	1	1	2	0	1	1	5	3	8
Simmons	28	2	30	11	2	13	28	5	33	33	8	41	2	0	2	102	17	119
South Carolina	15	5	20	23	2	26	5	1	6	7	0	7	1	0	1	51	8	60
South Florida	7	1	8	10	1	11	3	1	4	2	0	2	0	0	0	22	3	25
Southern Connecticut	12	0	12	9	3	12	2	1	3	7	2	9	1	0	1	31	6	37
Southern Mississippi	5	1	6	5	1	6	1	1	2	1	1	2	0	0	0	12	4	16
Syracuse	5	0	5	5	1	6	1	1	2	1	1	2	0	0	0	12	4	16
Tennessee	4	1	5	1	0	1	3	1	4	3	2	5	2	1	3	13	5	18
Texas	7	4	11	11	1	12	4	8	12	7	2	9	3	3	6	32	18	50
Texas Woman's	7	1	8	5	1	6	2	1	3	7	0	7	0	0	0	21	3	24
Toronto	20	0	20	1	0	1	1	0	1	11	2	13	1	3	4	34	5	39
Washington	9	4	13	5	0	5	6	7	13	8	0	8	0	0	0	28	11	39
Western Ontario	17	2	19	3	0	3	9	2	11	20	10	30	3	4	7	52	18	70
Wisconsin (Madison)	9	3	12	5	0	5	6	4	10	4	2	6	0	0	0	24	9	33
Wisconsin (Milwaukee)	5	0	5	4	0	4	4	0	4	1	0	1	0	0	0	14	0	14
Total	**494**	**116**	**610**	**321**	**32**	**355**	**300**	**133**	**434**	**354**	**94**	**449**	**91**	**62**	**153**	**1560**	**437**	**2001**

* Includes placements undifferentiated by sex or type of library

prior experience the average beginning salary was $24,018, up from $21,971 in 1986; without experience, $20,402, up from $19,457 in 1986.

The number of graduates continues to rise, the average salary increase is the highest since 1981, and there are many more jobs than qualified people to fill them.

There were 279 temporary professional placements reported in 1987, compared with 240 in 1986 and 272 in 1985. Canadian salaries are given in U.S. dollar equivalents. The category other information specialties includes a wide variety of nontraditional positions.

Placement statistics

First professional degrees were awarded to 3,702 graduates of the 55 schools reporting in 1987 (Table I). In 1986, the 53 reporting schools awarded 3,538 first professional degrees; in 1985, the 58 reporting schools awarded 3,484 first professional degrees. In 1987, the average number of graduates of schools reporting was 67; in 1986 it was 67; in 1985 it was 60.

Table I shows permanent and temporary professional placements, as well as nonprofessional library placements, and the totals for the three. These are library or information-related positions. Table I also shows the number of graduates reported who were not in library positions or whose employment status was unknown at the beginning of April 1988. Of these, 10% were known not to be in library positions compared with 10% in 1986, and 13% in 1985. In April 1988, the whereabouts of 23% were unknown compared with 23% in April 1987 and 21% in April 1986.

Of the 1987 graduates, 67% were known to be employed either in professional or nonprofessional positions in libraries or information-related work, as were 66% of the 1986 graduates, and 69% of the 1985 graduates. Of the 1987 graduates, 57% were known to be employed in permanent professional positions, compared with 57% of the 1986 graduates and 57% of the 1985 graduates.

Employment distribution of 2,001 of the 3,702 graduates (54%) is shown in Table III, Table IV, and Table XI. In all, 2,122 permanent full-time professional placements were reported and 279 temporary placements. Of the 2,122 people finding permanent professional positions, 594 (28%) found jobs before graduation and 607 (29%) reported actively searching for less than 90 days for professional employment after getting their degrees.

There were 123 people (6%) who looked for three or four months. Eighty-eight (4%) looked from four to six months, and 52 (2%) looked for more than six months. A total of 421 people (20%) went back to their previous positions. Nothing is known about the length of time it took the 237 others (11%) to find employment.

In 1987, 2.1% of the graduates were in nonprofessional library and related positions (Table I). In 1986, 2.7% were in this category, down from 4% in the seven previous years. Within the category, 80% are women and 20% are men.

The percentage of increase or decrease in placements by type of library has decreased notably for college and university libraries, and increased modestly for the other types. In actual numbers the increase and decrease is more marked than in recent years as shown in Table IV. Table IV does not include 43 foreign professional placements and 78 placements that were undifferentiated by type of library but which appear in Table I in the Permanent Professional Placements category (a total of 2,122 placements).

Comparisons of U.S. and Canadian placements appear in Table V. Table VI, showing Special Placements, is self-explanatory and gives a rough picture of hiring activity in various specialties in 1987.

IV Placements by Type of Library, 1951–1987

Year	Public	School	College & Universities	Other Library Agencies*	Total
1951-1955**	2076 (33.0%)	1424 (23.0%)	1774 (28.0%)	1000 (16.0%)	6264
1956-1960**	2057 (33.0)	1287 (20.0)	1878 (30.0)	1105 (17.0)	6327
1961-1965	2876 (30.0)	1979 (20.0)	3167 (33.0)	1600 (17.0)	9622
1966-1970	4773 (28.0)	3969 (23.0)	5834 (34.0)	2456 (15.0)	17032
1971	999 (29.0)	924 (26.0)	1067 (30.0)	513 (15.0)	3503
1972	1117 (30.0)	987 (26.0)	1073 (29.0)	574 (15.0)	3751
1973	1180 (31.0)	969 (25.0)	1017 (26.0)	712 (18.0)	3878
1974	1132 (31.0)	893 (24.0)	952 (26.0)	691 (19.0)	3668
1975	994 (30.0)	813 (24.0)	847 (25.0)	714 (21.0)	3368
1976	764 (27.1)	655 (23.2)	741 (26.3)	657 (23.2)	2817
1977	846 (28.4)	673 (22.6)	771 (25.9)	687 (23.1)	2977
1978	779 (26.1)	590 (19.8)	819 (27.4)	798 (26.7)	2986
1979	778 (27.4)	508 (17.9)	716 (25.3)	835 (29.4)	2837
1980	659 (27.1)	473 (19.5)	610 (25.1)	687 (28.3)	2429
1981	642 (27.3)	451 (19.2)	556 (23.6)	704 (29.9)	2353
1982	588 (28.5)	358 (17.4)	505 (24.5)	612 (29.7)	2063
1983	501 (28.0)	308 (17.3)	424 (23.8)	552 (30.9)	1785
1984	548 (27.9)	284 (14.4)	551 (28.0)	583 (29.7)	1966
1985	565 (29.4)	300 (15.6)	522 (27.2)	533 (27.8)	1920
1986	576 (30.3)	288 (15.2)	488 (25.7)	548 (28.8)	1900
1987	610 (30.5)	355 (17.7)	434 (21.7)	602 (30.1)	2001

* From 1951 through 1966 these tabulations were for "special and other placements" in all kinds of libraries. From 1967 to 1979 these figures include only placements in library agencies that do not clearly belong to one of the other three groups, in the 1980 through 1987 report these figures include the sum of responses to placements in special libraries and in other information specialties

** Figures for individual years are reported in preceding articles in this series

V U.S. and Canadian Placements Compared

(Percents may not total 100 because of rounding)

	Placements	Public Libraries	School Libraries	College & University Libraries	Special Libraries	Other Info. Specialties
All Schools*	2001	610 (30.5)	355 (17.7)	434 (21.7)	449 (22.4)	153 (7.6)
Women	1560	494 (31.7)	321 (20.6)	300 (19.2)	354 (22.7)	91 (5.8)
Men	437	116 (26.5)	32 (7.3)	133 (30.4)	94 (21.5)	62 (14.2)
U.S. Schools*	1828	522 (30.2)	344 (18.8)	404 (22.1)	389 (21.3)	139 (7.6)
Women	1420	439 (30.9)	311 (21.9)	276 (19.4)	310 (21.8)	84 (5.9)
Men	404	113 (28.0)	33 (7.7)	127 (31.4)	78 (19.3)	55 (13.6)
Canadian Schools*	173	58 (33.5)	11 (6.4)	30 (17.3)	60 (34.7)	14 (8.1)
Women	140	55 (39.3)	10 (7.1)	24 (17.1)	44 (31.4)	7 (5.0)
Men	33	3 (9.1)	1 (3.0)	6 (18.2)	16 (48.5)	7 (21.2)

*Includes placements undifferentiated by sex

"For new graduates with relevant prior experience the average beginning salary was $24,018, up from $21,971 in 1986; without experience, $20,402, up from $19,457 in 1986"

Openings and applicants

A total of 61,063 listings of open library positions were reported received by 40 schools, ranging in number of listings from 100 to 5000. The listings were for positions at all levels, and many were duplicated in several places. In 1986, 40 schools reported 60,807 listings.

Twenty-one schools reported increases in position listings in 1987 over 1986. Increases reported in 1987 ranged from 1% to 345%. The median was 15%. Fourteen schools reported no significant change from 1986; four reported a decrease ranging from 5.2% to 10%. Forty-three placement officers reported no major difficulty in placing 1987 graduates. Two reported major difficulty in placing these graduates. Two placement officers indicated that they had more difficulty placing graduates in 1987 than in 1986. Thirteen reported having less difficulty, and 30 reported about the same level of difficulty in both years.

The strong demand for children's and young adult specialists in public and school libraries continues as does the demand for technical services specialists, particularly catalogers, and people with an information science background. Other specialties mentioned as still in demand are science, law, medical, archival, and systems analysis.

Undergraduate majors that make graduates especially attractive to employers continue to be science (all types), math, languages, engineering, business, computer science, art, and music.

Several respondents emphasized the diverse enrollment in their schools, indicating that as many as one-third to one-half of the students have post-bachelor's degrees and thus enter the MS programs with specialized subject strengths and often with excellent employment experience.

The bottom line

The salary statistics reported include only salaries that were reported

VI Special Placements*

	Women	Men	Total
Government Jurisdictions (U.S. and Canada)			
Other government agencies (except USVA hospitals)	30	15	45
National libraries	19	15	34
State and provincial libraries	17	4	21
Overseas agencies (incl. Armed Services)	3	1	4
Armed Services libraries (domestic)	2	0	2
Library Science			
Advanced study	11	9	20
Teaching	7	3	10
Other			
Children's services (school libraries)	132	6	138
Business, (finance, industrial, corporate, banking, insurance, oil, etc.)	78	22	100
Law	80	18	98
Children's services (public libraries)	78	9	87
Systems analysis, automation	44	30	74
Youth services (school)	64	3	67
Youth services (public libraries)	53	11	64
Audiovisual and media centers	39	12	51
Science and technology	32	18	50
Bibliographic instruction	43	6	49
Medicine (incl. nursing schools)	42	3	45
Communications industry (advertising, newspaper, etc.)	31	6	37
Information services (nonlibrary)	21	9	30
Art and museum	24	4	28
Bookstore	3	24	27
Rare books, manuscripts, archives	12	13	25
Social sciences	16	9	25
Historical agencies and archives	15	9	24
Records management	19	5	24
Government documents	15	8	23
Religion (seminaries, theological schools)	12	11	23
Outreach activities and services	18	3	21
Hospitals (incl. USVA hospitals)	16	4	20
Research and development	14	4	19
Databases (publishing, servicing)	15	3	18
Indexing & abstracting	12	4	16
Correctional institutions	11	2	13
Theater, motion pictures, dance, music	4	9	13
Architecture	11	1	12
Conservation/Preservation	9	2	11
Children's services (other)	8	1	9
International relations (incl. area studies)	5	3	8
Professional associations	8	0	8
Pharmaceutical	4	3	7
Public affairs information specialist	7	0	7
Free-lance	4	2	6
Library services to the handicapped	5	0	5
Networks and consortia	5	0	5
Spanish-speaking centers	4	1	5
Technical writing	2	2	4
Genealogical	2	1	3
International agencies	2	1	3
Sales	3	0	3
Consulting	2	0	2
Maps	1	0	1
Total Special Placements	**1114**	**330**	**1444**

* Includes special placements in all types of libraries

VII Salary Data Summarized

	Women	Men	Total
Average (Mean) Salary	$22045	$23013	$22247
Median Salary	21000	22000	21116
Individual Salary Range	9500-44000	13000-72000	9500-72000

"The average salary for all 1987 graduates was $22,247, an increase of $1,373 (7%) over the 1986 average of $20,874"

VIII Average Salary Index

Starting Library Positions, 1967–1987

Year	Library Schools	Fifth-Year Graduates	Average Beginning Salary	Increase in Average	Beginning Index
1967	40	4030	$7305	—	—
1968	42	4625	7650	$355	105
1969	45	4970	8161	501	112
1970	48	5569	8611	450	118
1971	47	5670	8846	235	121
1972	48	6079	9248	402	127
1973	53	6336	9423	175	129
1974	52	6370	10000	617	137
1975	51	6010	10594	554	145
1976	53	5415	11149	555	153
1977	53	5467	11894	745	163
1978	62	5442	12527	633	171
1979	61	5139	13127	600	180
1980	63	4396	14223	1096	195
1981	65	4512	15633	1410	214
1982	64	4050	16583	950	227
1983	60	3494	17705	1122	242
1984	57	3529	18791	1086	257
1985	58	3484	19753	962	270
1986	54	3538	20874	1121	286
1987	55	3702	22247	1373	305

IX High Salaries by Type of Library

	Public			School			College & Univ.			Special			Other		
	Women	Men	Total	Women	Men	Total	Women	Men	Total	Women	Men	Total	Women	Men	Total
14,000								1	1		1	1			
15,000					1	1									
16,000		2	2	1	1	2	1	1	1	2		2	2	2	2
17,000	1	1	2				2		2						
18,000		1	1	1		1		5	5	2	3	5	2		2
19,000	5	3	8	1		1	3		3	1	1	2			
20,000		2	2	1			7	3	10	5	2	7	3	1	4
21,000	5	6	11	1	2	3	2	3	5	2	2	4	1		1
22,000	9	7	16	1	2	3	2	1	3	3	1	4	2	1	3
23,000	12	6	18				7	3	9	1	3	4		3	3
24,000	4	3	7		2	2	7	2	9	2	4	6	1		1
25,000	3	2	5	4	1	5	4	8	12	2	3	5	1		1
26,000	4		4	5		5	2	3	5	3	2	5	3		3
27,000	2	1	3	4		4	3	4	7	2		2		1	1
28,000	2	1	3				4		4	4	3	7	6	2	8
29,000				2	3	5	3		3	1	1	2	1		1
30,000	1	2	3	7	1	8	1	1	2	5		5	1	1	2
31,000	1		1	3	2	5				2		2	1		1
32,000				3		3				1	4	5		1	1
33,000				1		1	2	1	3	2		2			
34,000				1		1		2	2	2		2	1		1
35,000				3		3		1	1	4		4	1	1	2
36,000				1		1					1	1			
37,000				1		1					1	1		1	1
38,000				1		1		1	1	2		2			
39,000	1		1	1		1								1	1
40,000				1		1				1	1	2	1		1
41,000															
42,000					1	1				2		2			
43,000				1		1									
44,000													1		1
45,000														1	1
54,000														1	1
72,000														1	1

as full-time annual salaries. Variables such as vacations and other fringe benefits, which may be part of the total compensation, are excluded. Salaries do not reflect differences in hours worked per week. Such information might provide more precise comparability, but such data is probably beyond the needs of most library schools in the profession. In any case, the validity of this analysis rests on comparable statistics collected since 1951.

All of the 55 reporting schools provided some salary data. Not all schools could provide all the information requested nor could they supply it for all employed graduates. Data for graduates in irregular placements, such as those for graduates from abroad returning to posts in their homelands, appointments in religious orders or elsewhere where remuneration is in the form of some combination of salary plus living, and all salaries for part-time employment, were excluded as best the authors can tell.

The exclusions were added to the number of salaries not known or not reported. As a result, there is known salary information for 1610 of the 1987 graduates (1,272 women, 337 men, and one undifferentiated by sex). This represents 79% of the known placements and 43% of all graduates reported. These response ratios have remained fairly constant for the past few years. In 1986 there was salary information on 75% of the known placements, representing 43% of the number of graduates reported.

Salary data as reported by the 55 schools are contained in Table II and summarized in Table VII. Salary figures are in U.S. dollars.

Average (mean) salaries

The average salary for all 1987 graduates was $22,247, an increase of $1,373 (7%) over the 1986 average of $20,874. This is the largest increase since 1981. The average salary for women was $22,045 and the average for men was $23,013, a difference of $968 (Table VII). Table VIII shows the annual changes in average salaries since 1967, and includes a beginning salary index figure that may be compared with the Annual Cost of Living (COL) Index Report issued by the U.S. government.

The COL Index for 1987 was 340.4, an increase of 12 points over the 1986 figure of 328.4, a gain of 3.7%. The comparable increase in the beginning salary index was 19 points, 7.0 above the increase in the cost of living, the second largest gain in several years.

Salaries in 1987 in the category of average salaries for women ranged from a low of $9500 to a high of $44,000, a difference of $34,500; for men, the range was $13,000 to $72,000, a $59,000 difference. In the 48 schools that reported average salaries for both men and women, the women's average salary was higher in 19 schools; the men's average salary was higher in 29 schools. In 1986, the women's average salary was higher in 20 schools, and the men's in 30 schools.

In Table XI, the average salary is higher for men (the difference ranging from $722 to $4,056) in all but the category "Special Libraries" where the average salary was higher for women by only $110.

Median salaries

The median salary for all graduates in 1987 was $21,116, an increase of $1,116 over the 1986 median of $20,000. The median for women was $21,000; for men, $22,000. Of the 48 schools reporting on both men and women, the median salary for women was higher in 21 schools; for men in 25; and the same in two.

Salary ranges

A wide range between high and low individual salaries continued in 1987. For the purposes of the survey, prior experience, if known, consisted of work of a professional and/or subject nature of a year or more. In 1987, the range (Table VII) was from a low of $9500 (a public library) to a high of $72,000 (in the category other library agencies), a difference of $62,500.

In 1987, the range of high salaries reported was from $25,000 to $72,000, a difference of $47,000. The high range in 1986 was from $18,126 to $61,859, a difference of $43,733.

In 1987, 42 schools showed high salaries of $30,000 or more. Of these, 37 went to women and 21 to men. The median high salary for all graduates was $35,000 (up from $30,000 in 1986); for women, $32,000 (up from $29,689 in 1986); for men, $28,000 (up from $26,850 in 1986).

In 1987, the category special libraries accounted for 25% of the 51 highest salaries (18% in 1986) and the category other information specialties accounted for 24% (10% in 1986). School libraries accounted for 41% (39% in 1986); academic libraries accounted for 6% (20% in 1986); public libraries had a 4% share (12% in 1986).

The positions were scattered geographically and included 25 states, the District of Columbia, and two Canadian provinces; New York accounted for seven positions, California, for five, and the rest for one, two, or three each.

The lowest reported beginning-level salaries from each school ranged from $9500–$22,000. The 1986 range was from $11,200–$21,000. The median low salary was $16,000 ($15,000 in 1986) for all graduates. Forty-eight schools reported low salaries for men and women; of these, 38 reported that the lowest low was received by a woman; eight reported that the lowest low was received by a man; two schools reported that both received the same.

Public libraries accounted for 40% of the lowest salaries reported (44% in 1986); academic libraries accounted for 24% (21% in 1986); special libraries accounted for 18% (23% in 1986); school libraries for 16% (6% in 1986); and other information specialties for 2% (6% in 1986).

Twenty-five states, four provinces were represented. New York led with five placements; Illinois, Georgia had three; the rest had one or two.

1988 predictions

Placement officers at 20 schools predict little or no change in the number of job vacancy listings for the Class of 1988. Nineteen officers think that there will be increases ranging from 1% to 170%; two predict decreases ranging from 9% to 51%. Placement officers at 27 schools expect the same difficulty placing 1988 graduates as placing 1987 graduates; two expect more difficulty; 19 expect less.

Salaries for 1988 will be higher according to 28 placement officers. Estimates range from $500 to $5000. Most estimates are in the $1000 to $2000 range. Seventeen officers do not think salaries will be higher in 1988.

The following table indicates the increasing and decreasing hiring rates of various types of libraries as perceived by the placement officers.

School Reporting	*Increase*	*Decrease*
Public Libraries	18	1
School Libraries	18	2
Academic Libraries	10	2
Special Libraries	12	1
Other Information Specialties	5	0

In 1987, 126 foreign students from 31 countries were reported among the graduates.

The authors thank all of the reporting schools for their continuing cooperation in making this annual report possible.

X Low Salaries by Type of Library

	Public			School			College & Univ.			Special			Other		
	Women	Men	Total	Women	Men	Total	Women	Men	Total	Women	Men	Total	Women	Men	Total
9,000	1		1												
10,000															
11,000				1		1									
12,000	1		1	1		1				1		1			
13,000	3		3	1		1	1	1	2	2	1	3			
14,000	2	1	3				2		2	1	1	2		1	1
15,000	6	1	7	4	1	5	2	1	3	1	1	2		1	1
16,000	13	4	17	2	1	3	9	2	11	9	2	11	3		3
17,000	7	5	12	7	1	8	11	2	13	3	1	4	1		1
18,000	8	5	13	5		5	10	13	23	11	3	14	3	2	5
19,000	2	5	7	4	1	5	4	3	7	8	1	9			
20,000	2	2	4	5		5	4	3	7	4	5	9	5	3	8
21,000	2	5	7	1	2	3	2	3	5	2	2	4	2		2
22,000	3	5	8	4	3	7	1	3	4	1	3	4	2	1	3
23,000		2	2	4		4	1	2	3	3	4	7		3	3
24,000					2	2	1		1	2	2	4	2	1	3
25,000		1	1	2	2	4		5	5		1	1			
26,000				2		2				1	1	2	2		2
27,000										1		1			
28,000											1	1	4	2	6
29,000					1	1					1	1			
30,000		1	1	1	1	2							1	1	2
31,000					1	1				1	1	2	1	1	2
32,000														1	1
33,000															
34,000							1		1						
35,000															
36,000								1	1				1		1
37,000											1	1			
38,000															
39,000								1	1					1	1
40,000											1	1	1		1

XI

Comparison of Salaries by Type of Library*

	Placements	Salaries Known			Low Salary			High Salary			Average Salary			Median Salary		
		Women	Men	Total	Women	Men	Total	Women	Men	Total	Women	Men	Total	Women	Men	Total
Public Libraries																
United States	552	372	92	464	9500	147000	9500	39000	30784	39000	20052	20801	20200	19900	21000	20000
Northeast	179	121	30	151	12680	16000	12680	28600	28000	28600	20563	21341	20718	21000	21500	21000
Southeast	113	70	18	88	13900	15600	13900	30056	23600	30056	19784	19458	19717	19500	19200	19500
Midwest	176	124	23	147	9500	14700	9500	39000	27000	39000	19577	20529	19726	19000	21000	19569
Southwest	37	25	10	35	13500	17400	13500	23000	30670	30670	19325	21225	19868	19489	20072	19500
West	47	32	11	43	15898	17297	15898	31000	30784	31000	21111	21714	21265	20328	21719	20500
Canada	58	45	2	47	13575	19231	13575	26395	21116	26395	20178	20174	20178	20362	19231	20362
All Schools	610	417	94	511	9500	14700	9500	39000	30784	39000	20066	20788	20198	21000	20000	20000
School Libraries																
United States	344	251	24	275	10000	16500	10000	43000	42000	43000	23908	25525	24049	23485	25000	23700
Northeast	127	100	9	109	10000	16500	10000	43000	42000	43000	23663	25686	23830	23000	24870	23000
Southeast	99	68	4	72	12600	21000	12600	36000	31000	36000	23844	23975	23852	23500	21500	23300
Midwest	50	35	2	37	15000	15200	15000	39000	29000	39000	25672	24100	25587	25000	19200	25000
Southwest	43	33	4	37	13500	22000	13500	29657	29326	29657	22181	24707	22454	22500	22500	22500
West	25	15	5	20	15000	25000	15000	40000	31500	40000	25507	27700	26055	23000	27000	25000
Canada	11	9	1	10	17345	15837	15837	35709	15837	35709	24823	15837	23924	26018	15837	21116
All Schools	355	260	25	285	10000	15837	10000	43000	42000	43000	23939	25138	24045	23485	25000	23700
College/Univ. Libraries																
United States	404	224	106	330	13000	13000	13000	33595	38000	38000	20794	22219	21252	20000	21240	20300
Northeast	108	70	20	90	13000	18000	13000	29000	33000	33000	21444	22995	21789	21000	22650	21500
Southeast	83	48	14	62	16300	16000	16000	33595	27000	33595	20781	20896	20807	20000	19000	20000
Midwest	136	73	42	115	14000	13000	13000	27000	38000	38000	19797	21289	20342	19700	20500	20000
Southwest	30	13	11	24	16500	18100	16500	22000	35000	35000	18762	23645	21000	18700	22500	20000
West	47	20	19	39	17500	16047	16047	33000	34452	34452	23513	23607	23559	23000	23880	23000
Canada	30	18	4	22	14706	17345	14706	27903	20362	27903	18804	19608	18950	18854	20362	19231
All Schools	434	242	110	352	13000	13000	13000	33595	38000	38000	20646	22124	21108	20000	21000	20100
Special Libraries																
United States	389	253	61	315	12000	13513	12000	42000	40750	42000	23976	24155	24002	23000	23500	23000
Northeast	195	126	31	157	12000	16000	12000	42000	40750	42000	25207	24728	25113	24000	23000	24000
Southeast	56	34	6	40	16000	13513	13513	35400	26000	35400	22014	21102	21877	21000	22000	21000
Midwest	69	41	16	57	15000	14700	14700	38900	36000	38900	22214	24408	22774	21000	24000	22000
Southwest	28	22	4	26	16340	24000	16340	34200	37200	37200	22704	27812	23490	22500	24048	23000
West	41	30	5	35	14000	18000	14000	40000	25000	40000	24367	20580	23826	24000	20400	24000
Canada	60	32	10	42	13575	15837	13575	29412	21116	29412	19814	18778	19568	20254	18476	20211
All Schools	449	285	71	357	12000	13513	12000	42000	40750	42000	23508	23398	23480	23000	23000	23000
Other Libraries																
United States	139	59	30	89	16000	18000	16000	44000	72000	72000	25921	31106	27669	26000	28000	26500
Northeast	87	36	16	52	18000	22000	18000	44000	45000	45000	26890	29525	27701	26500	28000	26500
Southeast	11	3	2	5	16000	28000	16000	22800	30000	30000	18267	29000	22560	16000	28000	22800
Midwest	17	12	3	15	16400	20000	16400	40000	37500	40000	23658	27000	24327	22000	23500	23500
Southwest	6	3	3	6	20700	18000	18000	26500	54500	54500	24133	33333	28733	25200	27500	25200
West	18	5	6	11	28000	20000	20000	34200	72000	72000	30040	36964	33817	30000	31992	30000
Canada	14	6	6	12	17722	18854	17722	21116	27149	27149	20111	21116	20613	20362	20362	20352
All Schools	153	65	36	101	16000	18000	16000	44000	72000	72000	25385	29441	26831	24500	27149	25000

* Includes placements undifferentiated by sex

XII

Effects of Experience on Salaries*

	Salaries Without Previous Experience (40 Schools)			Salaries with Previous Experience (48 Schools)		
	Women	Men	Total	Women	Men	Total
Number of Positions	333	83	416	470	134	605
Range of Low Salaries	$10000-24000	$14700-38000	$10000-24000	$9500-37200	$13000-41400	$9500-37200
Mean (Average)	17002	20453	17060	19456	22320	19092
Median	18000	21252	18000	17500	20000	17500
Range of High Salaries	$18000-39000	$18000-38000	$18120-39000	$22519-43000	$18100-72000	$25200-72000
Mean (Average)	24857	24174	26065	31812	29902	34669
Median	20945	25303	24870	35000	28000	35000
Range of Average Salaries	$16780-25242	$16760-38000	$17262-28000	$18122-38600	$17414-56700	$19315-48800
Mean (Average)	20094	21635	20402	23785	24858	24018
Median	19486	23278	20557	24757	24420	24541

* Includes placements undifferentiated by sex

How California identified areas for library recruitment and encouraged people to fill the gaps

Meeting the Need for Librarians:

The California Library School Recruitment Project

By Katie Scarborough & Constance W. Nyhan

IN 1987, California addressed "The Next Shortage of Librarians."[1] Armed with hot-off-the-press recruitment brochures and newly collected data that pinpointed professional staffing needs in the state's libraries, California librarians launched a statewide recruitment campaign. The timing of this recruitment effort could not have been better; the need for more qualified applicants for professional positions in particular areas of practice was widely acknowledged.

Discussion of recruitment within the California Society of Librarians (CSL), the largest constituent organization of the California Library Association (CLA), was initiated in 1983 by Marc Gittlesohn, a CSL director. Gittlesohn challenged CSL to take a more active role in the recruitment of talented, energetic, and capable individuals into the field. At that time, the job market was perceived to be flat. Librarian shortages were not yet apparent. In fact, a few members expressed dismay that CSL would consider expending any effort at all in recruiting.

The CSL board, however, enthusiastically welcomed Gittlesohn's suggestion, and formed the Ad Hoc Committee on Library School

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Table 1
Librarians by Selected Specializations

Type of Library	Total Librarians	Bilingual	Technical Services	Ethnic Studies	Children's Services	Other
Academic	966	131 (13.6%)	219 (22.7%)	16 (1.7%)	5 (0.5%)	595 (61.6%)
Public	2079	104 (5.0)	189 (9.1)	1 (0.0)	401 (19.3)	1384 (66.6)
Special	369	9 (2.4)	116 (31.4)	0 (0.0)	0 (0.0)	244 (66.1)
Total	**3414**	**244 (7.1%)**	**524 (15.3%)**	**17 (0.5%)**	**406 (11.9%)**	**2233 (65.1%)**

Recruitment. Foresighted the CSL board members were; fortunetellers they were not. There were no predictions that in 1987 children's librarians and catalogers would be on the endangered species list, but there was a strong commitment to attracting quality applicants into library schools, particularly ethnic minorities.

Board members reasoned that information professionals have creative, exciting, and challenging jobs; the field should not lose good candidates because we are not widely known. Rather than being a function of shortage or surplus, recruitment was seen as a necessary and ongoing process to inform prospective applicants about the field, its career opportunities, and appropriate preparation. During 1984 and 1985, the ad hoc committee began work on a recruitment handbook—a quide to recruitment strategies—and a series of career sheets describing librarianship and its various specializations.

The California project is born

By 1986 the profession was experiencing a healthier job market with increasing salaries for entry-level positions and a demand for certain specialists, primarily children's librarians and catalogers. The number of ethnic minorities in the field remained discouragingly low while California's minority populations continued to grow at a rapid rate. CSL realized recruitment had become a pressing issue and, under the leadership of then-President Linda Knutson, applied to the California State Library for LSCA funds to support the California Library School Recruitment Project (CLSRP).

The project appealed to California State Librarian Gary Strong partly due to demonstrations of support from the California library community as well as the state's library schools. In his award letter approving a $21,000 grant for the project, Strong agreed with the CSL board in stating that "our ability to increase the number of recruits into the profession will require the cooperation of all segments of the library community."

With the North Bay Cooperative Library System acting as fiscal agent, funding for a second year of the project was also approved. In addition to the support from the California State Library, the project's success can be attributed to the combined efforts of practitioners from various types of library/information settings, representation from major ethnic groups, and the partnership of California's three library schools.

In May 1986, the CLSRP hired Director Katie Scarborough to implement the project objectives: to make recruitment materials available; to collect and analyze data on recruitment needs; and to increase participation of all segments of the profession in the recruitment effort. Funding enabled the recruitment project to turn the ad hoc recruitment committee's draft career sheets into colorful and attractive brochure packets. These packets, released in the autumn of 1986, consist of a general brochure, "From Books to Bytes: Careers for Librarians and Information Professionals," and six inserts: "Careers in Public Libraries," "Careers in College and University Libraries," "Careers in Special Libraries," "Careers in Children's Li-

Table 2
Bilingual Librarians by Language

	Librarians hired as bilingual in:					
Type of Library	**Spanish**	**Chinese**	**Japanese**	**Vietnamese**	**Korean**	**Other**
Academic	21 (16.0%)	11 (8.4%)	4 (3.1%)	0 (0.0%)	1 (0.8%)	82 (62.6%)
Public	77 (74.0)	16 (15.4)	3 (2.9)	1 (1.0)	2 (1.9)	8 (7.7)
Special	1 (11.1)	1 (11.1)	1 (11.1)	0 (0.0)	0 (0.0)	7 (77.8)
Total	**99 (40.6%)**	**28 (11.5%)**	**8 (3.3%)**	**1 (0.4%)**	**3 (1.2%)**	**97 (39.8%)**

Table 3
Minority Librarians Compared to the State's Current and Projected Populations

Type of Library	Black	Asian American	Hispanic	Native American	Pacific Islander	Other
Academic	29 (3.0%)	63 (6.5%)	26 (2.7%)	2 (0.2%)	3 (0.3%)	1 (0.1%)
Public	81 (3.9)	130 (6.3)	97 (4.7)	7 (0.3)	10 (0.5)	8 (0.4)
Special	15 (4.1)	31 (8.4)	6 (1.6)	0 (0.0)	2 (0.5)	1 (0.3)
Total	**125 (3.7%)**	**224 (6.6%)**	**129 (3.8%)**	**9 (0.3%)**	**15 (0.4%)**	**10 (0.3%)**
Percent of California Population, 1980:	7.7%	5.3%	18.6%	1.0%	0.3%	0.3%
Percent of California Population, 2000 (projected):	7.6%	*	24.4%	*	*	*

* Projections indicate that nonblack and non-Hispanic ethnic groups will total 9.8% of California's population by 2000. These figures are taken from estimates by the Palo Alto–based Center for Continuing Study of the California Economy, in "Projections of Hispanic Population for California, 1985–2000," a report published in 1982

brarianship," "Careers—Opportunities for Minorities in Librarianship," and "Careers in Non-Library Environments." (These brochures are available for sale from the CLA main office, 717 K St., Suite 300, Sacramento, CA 95814.)

Spreading the word

Widespread participation in the project began with CSL's program, "The Librarian Shortage: Learn To Recruit," at the CLA Annual Conference in November 1986. Program attendees received the recruitment brochure packet and were encouraged to sign up for recruitment training workshops planned for 1987. They were also among the first to hear results of the project's survey of professional staffing needs in California's libraries.

Table 4
Openings Filled Between January 1984 and August 1986

	# of Openings Reported	% of Total Openings	Average # of Months To Fill	Average # of Qualified Applicants
Overall	681	100.0	3.8	11
Academic	168	24.7	4.4	19
Public	416	61.1	4.0	10
Special	97	14.2	2.0	5
Children's, All*	93	13.7	2.9	7
Librarians (unsp), All	171	25.1	3.5	10
Academic	20	2.9	3.6	12
Public	103	15.1	4.4	14
Special	48	7.0	1.8	4
Managers, Overall	67	9.8	6.2	14
Academic	20	2.9	6.1	20
Public	36	5.3	7.8	13
Special	11	1.6	2.0	6
Reference, Overall	170	25.0	3.2	14
Academic	55	8.1	3.6	24
Public	107	15.7	3.0	9
Special	8	1.2	2.3	5
Subject Specialists	42	6.2	4.2	9
Academic	24	3.5	4.2	12
Public	5	0.7	5.0	10
Special	13	1.9	3.8	4
Technical Services, Overall	70	10.3	2.2	11
Academic	32	4.7	5.2	18
Public	25	3.7	4.1	6
Special	13	1.9	0.8	4

* All openings reported for children's services positions were at public libraries

Although the recruitment project had been initiated more with quality than quantity issues in mind, CSL was aware of the importance of data to support any recruitment effort. The board knew that savvy undergraduates would want reassurances that jobs await those who complete a master's program in library and information science; current data reflecting statewide trends would also be needed by those contemplating a career change.

The project director conducted the survey of professional staffing needs during the summer and early autumn of 1986, distributing questionnaires to 949 California libraries: 169 public, 251 academic, and 529 special. School libraries were not surveyed for two reasons: they have not been consistent employers of library school graduates in California, hiring teachers with the Library Services Credential instead; and the project did not have the resources to collect data from the many elementary and secondary school systems in the state.

Three versions of the survey were used—one for each type of library surveyed—but all asked basically the same questions: How many librarians are now employed at California libraries, and of those, how many are children's, bilingual, ethnic studies, or technical services librarians? What are the current salaries for these positions? How many librarians hold MLS degrees? How many are minorities?

Preparing for the future

The survey also attempted to gauge future demand for California librarians by asking: How many openings are expected for librarians in the next few years? Of these, how many will be due to creation of new positions and how many will be openings due to attrition? In which specializations will these openings occur? In

Table 5
Average Annual Salary Ranges by Selected Specializations

Type of Library	Bilingual		Technical Services		Ethnic Studies		Children's Services	
	Avg Low Salary	Avg High Salary	Avg Low Salary	Avg High Salary	Avg Low Salary	Avg High Salary	Avg Low Salary	Avg High Salary
Academic	$29,349	$34,221	$26,073	$35,386	$29,293	$41,382	$30,021	$35,654
Public	$21,675	$27,958	$23,130	$29,974	*	*	$23,143	$29,560
Special	$26,828	$35,828	$22,505	$26,372	*	*	*	*
Overall	**$24,831**	**$30,875**	**$24,029**	**$30,912**	**$29,293**	**$41,382**	**$23,568**	**$29,936**

* No current salary figures were reported in these categories

which, if any, might libraries expect difficulty in finding qualified applicants?

Finally, the survey sought data detailing recent position openings, as well as evidence about the ability of libraries to fill those positions. In other words, it asked: How well have staffing needs been met in the recent past, and, based on this experience, how well might we expect to meet these needs in the future?

A total of 391 responses to the survey were received: 62 percent of the public, 44 percent of the academic, and 32 percent of the special libraries surveyed. The responding libraries employed a total of 3,414 librarians, with the term "librarian" defined by the survey as "a staff member whose work requires professional training and skill in library science." Of the 3,414 librarians, 3,102 or 90.9 percent of these were reported to be MLS holders.

The survey asked libraries to report numbers of bilingual, technical services, ethnic studies, and children's services librarians. Table 1 indicates that technical services librarians accounted for 15.3 percent of the librarians at responding libraries, with the heaviest concentration being in special libraries. However, this result may be slightly inflated; many "generalists" in one-person libraries appear to have labeled themselves as technical services librarians on the survey.

Table 1 also shows that 406 children's librarians worked for the respondents. Public libraries employed 98.8 percent of these, with the remainder reported as children's literature specialists by academic libraries. Children's librarians accounted for 19.3 percent of public librarians, and 11.9 percent of librarians overall.

Define "bilingual librarian"

Respondents reported very few ethnic studies librarians. However, the data might not account for all those actually specializing in this area. For some librarians, ethnic studies may be a part-time activity, and this may not have been reflected in the responses.

The survey defined "bilingual librarian" as "a librarian whose job description includes the requirement or preference for proficiency in one or more foreign languages." Several respondents commented that although they do not hire bilingual librarians as such, they prefer people with language skills and use this as a hiring criterion. One respondent wrote, for example, that "although we do not have specified bilingual positions, we do need librarians who are bilingual/bicultural in Spanish, Vietnamese, Cambodian, and Japanese."

Other comments indicated that librarians with bilingual skills frequently must use those skills whether or not they were originally hired—and whether or not they are paid—for them. One respondent wrote:

> As a librarian of Hispanic origin—also bilingual—I have never been required to speak/read Spanish in any of my pro-

Table 6
Salary Ranges Reported by Type of Opening

	Average Low Salaries	Average High Salaries	Minimum Low Salaries	Maximum High Salaries
Overall	$24,305	$28,359	$7,200	$80,000
Academic	$26,252	$32,326	$14,000	$80,000
Public	$23,568	$27,087	$10,380	$58,777
Special	$23,893	$26,534	$7,200	$49,920
Children's, All*	$22,613	$25,954	$13,932	$40,847
Librarians (unsp), All	$22,899	$26,296	$7,200	$48,864
Academic	$24,574	$26,057	$16,000	$43,680
Public	$22,322	$26,526	$15,855	$36,084
Special	$23,504	$25,853	$7,200	$48,864
Managers, Overall	$30,342	$35,405	$15,000	$80,000
Academic	$30,807	$39,694	$15,000	$80,000
Public	$31,725	$35,668	$15,000	$55,486
Special	$25,599	$28,014	$17,500	$45,000
Reference, Overall	$23,781	$27,697	$14,000	$54,080
Academic	$26,249	$31,862	$14,000	$54,080
Public	$22,451	$25,454	$15,672	$37,308
Special	$21,375	$23,625	$19,000	$36,000
Subject Specialists Overall	$24,667	$29,397	$17,500	$48,000
Academic	$24,331	$30,031	$17,500	$42,228
Public	$23,392	$24,961	$19,284	$35,328
Special	$25,773	$29,800	$19,000	$48,000
Technical Services, Overall	$24,831	$29,369	$15,000	$58,777
Academic	$25,302	$31,578	$15,000	$53,300
Public	$24,556	$27,981	$17,124	$58,777
Special	$24,225	$26,686	$19,000	$49,920

* All openings reported for children's services positions were at public libraries

Table 7
Openings Expected from 1987 to 1989 (in Full-Time Equivalents)

	Probable New Openings			Openings Due to Attrition			Total Openings		
Type of Library	1987	1988	1989	1987	1988	1989	1987	1988	1989
Academic	16.5	8.0	9.5	15.0	11.50	14.0	31.5	19.50	23.5
Public	53.0	56.5	64.5	140.0	105.75	161.5	193.0	162.25	226.0
Special	15.0	11.0	4.0	13.2	10.00	8.0	28.2	21.00	12.0
Total	**84.5**	**75.5**	**78.0**	**168.2**	**127.25**	**183.5**	**252.7**	**202.75**	**261.5**

fessional positions. However, my ability to speak and read Spanish has been a skill I have utilized in almost all of my places of employment.

Of those librarians reported as bilingual, 99 or 40.6 percent were hired for their ability to speak Spanish; 28 or 11.9 percent were employed for their ability to speak Chinese. A large number of bilingual librarians overall, 97 or 39.8 percent, speak languages that fall into the "other" category.

Table 2 shows that different types of libraries clearly have different needs for bilingual librarians. About 74 percent of the bilingual librarians reported by public libraries were Spanish-speaking, while academic and special libraries listed 63 percent and 78 percent of their bilingual librarians in the "other" category. "Other" languages named include French, German, Italian, Russian, Arabic, and Slavic languages.

Ethnic disparities

The results of the survey confirmed that minority librarians were underrepresented in California. Table 3 shows the number of minority librarians reported by responding libraries, and compares these numbers to figures from the 1980 U.S. Census and to recent projections of the proportions of ethnic populations expected by the year 2000. The most striking disparities are between the proportions of Hispanics and blacks in librarianship and in the population of the state at large. Asian-Americans are the only ethnic group that does not appear to be underrepresented.

> *"Although the recruitment project had been initiated more with quality than quantity issues in mind, CSL was aware of the importance of data to support any recruitment effort"*

In response to the most detailed question on the survey, libraries listed the positions for which they had actively recruited librarians between January 1984 and mid-1986. This data helped identify the types and patterns of positions open most frequently in the recent past. Because the survey asked about the number of qualified applicants for each position, responses also indicated the size of the applicant pool in California for various specializations.

For children's and technical services, one indicator of greater need was in the reported number of qualified applicants per job opening. The average number of qualified applicants per position for children's librarian positions was seven, and for technical services positions at public libraries was six. In comparison, in academic libraries, where the average number of qualified applicants for all types of positions was 19, the average for technical services positions was 18. The overall average number of applicants for all types of positions was 11.

Numbers of openings reported by respondents, broken down by position type, are shown in Table 4. Of the openings reported, 13.7 percent were for children's librarians and 9.9 percent for technical services librarians. However, these figures may understate needs, because a substantial proportion of openings—25.1 percent—were reported as for "librarians" with no indication of specialization.

Table 8
New Openings Expected Per Year from 1987 to 1989
by Specialization (in Full-Time Equivalents)

	Bilingual	Techni-Srvcs	Ethnic Studies	Children's Srvcs	Other	Total
1987:						
Academic	3.0	6.75	0	1.0	5.75	16.5
Public	12.0	5.50	0	18.5	17.00	53.0
Special	0.0	10.00	0	0.0	5.00	15.0
Total	**15.0**	**22.25**	**0**	**19.5**	**27.75**	**84.5**
1988:						
Academic	2.0	2.00	0	0.0	4.00	8.0
Public	14.0	11.50	0	20.0	11.00	56.5
Special	1.0	5.00	0	0.0	5.00	11.0
Total	**17.0**	**18.50**	**0**	**20.0**	**20.00**	**75.5**
1989:						
Academic	3.5	3.0	0	1.0	2.00	9.5
Public	13.0	11.00	0	28.5	12.00	64.5
Special	0.0	2.00	0	0.0	2.00	4.0
Total	**16.5**	**15.00**	**0**	**29.5**	**16.00**	**78.0**

Money, always money

The survey also collected salary information, asking for current salary ranges for specializations and for salary ranges offered with the job openings of the last three years. Current salary range figures, as reported for bilingual, technical services, ethnic studies, and children's librarians, are shown in Table 5. Salary ranges reported for recent job openings are listed in Table 6, showing minimum, average, and maximum figures reported for various types of openings.

Library directors were asked to predict their staffing needs for librarians over the next few years. Table 7 indicates that responding libraries expected to have 75 to 85 new positions per year through 1989. Expected openings due to attrition are also shown, along with the total number of jobs expected to open.

In asking about expected openings, the survey focused on specializations with which the recruitment project had been most concerned. Table 8 shows a slight drop in the expected number of new positions for technical services librarians from 1987 to 1989, while the new positions expected for children's librarians go up in 1989. For technical services positions, Table 9 shows that about the same number of openings due to attrition as new openings are expected each year. But for children's librarians positions, the number of openings due to attrition expected in each year is two to three times the number of new openings expected. Anticipated openings for children's librarians accounted for an average of 29 percent of the total expected openings, and those for technical services accounted for 18 percent of those expected.

Wishful recruitment

Library directors were also asked to indicate the numbers of new positions they would like to offer, given no budgetary or other similar constraints. The resulting data suggest the number of new positions desired by library directors to provide optimum levels of service. Resulting data indicate that library directors generally thought they needed two to three times as many new positions as they were likely to get.

Respondents were also asked to anticipate shortages of qualified applicants for openings other than those for specializations identified elsewhere in the survey. About 24 percent of respondents did expect such shortages, with the most frequently mentioned areas being automation and telecommunications. Subject specialists in science, engineering, business, and law were feared to be in short supply, as well.

Focusing our efforts

The survey data pinpointed areas where recruitment efforts should be focused. The highest priority was given to the recruitment of black and Hispanic librarians. It may well be that the existence of greater opportunity for minorities in other, higher-status and higher-salaried professions—law, business, and medicine, for example—has exacerbated the problem of low minority representation in the library field.

We must promote the profession to these groups, to help counter the ethnic brain drain that Lorene Brown found in her study, "A Crisis in Librarianship" which demonstrated a 40 percent decline in the number of minority library school graduates between 1979 and 1984.[2] Brown's data, however, provides no breakdown by state. The data collected by the CLSRP survey can be used as a baseline against which to measure progress within the state in the critical area of minority recruitment.

The survey data revealed the extent of the demand for children's librarians in California, and the need to effectively recruit and train these librarians who often represent a library client's first introduction to library services. The data also did not appear to substantiate the often-heard claim that children's librarians have lower salaries than other types of librarians. Salary figures reported for children's librarians were not significantly different from those of other public librarians.

Give 'em what they want (and need)

The results from the survey provided information that recruits want, and that librarian recruiters can give. The second phase of the Recruitment Project called for the publication of a handbook detailing recruitment techniques and a series of regional workshops to train at least 50 librarians in the recruitment process.

Table 9
Openings Expected Due to Attrition from 1987 Through 1989
by Specialization (in Full-Time Equivalents)

	Bilingual	Technl Srvcs	Ethnic Studies	Children's Srvcs	Other	Total
1987:						
Academic	3.0	4.0	0	1.00	7.0	15.00
Public	13.0	8.5	0	47.50	71.0	140.00
Special	2.0	5.2	0	0.00	6.0	13.20
Total	**18.0**	**17.7**	**0**	**48.50**	**84.0**	**168.20**
1988:						
Academic	2.0	5.0	0	1.00	3.5	11.50
Public	16.0	11.5	0	65.25	13.0	105.75
Special	2.0	8.0	0	0.00	0.0	10.00
Total	**20.0**	**24.5**	**0**	**66.25**	**16.5**	**127.25**
1989:						
Academic	1.0	8.0	0	0.00	5.0	14.00
Public	15.0	16.0	0	53.00	77.5	161.50
Special	1.0	4.0	0	0.00	3.0	8.00
Total	**17.0**	**28.0**	**0**	**53.00**	**85.5**	**183.50**

A recruitment effort can help the information profession acquire a positive and realistic identity among college students and the people who work with them. It may also help shake the inaccurate stereotypes that plague our field. This regional approach will facilitate communication between recruiter and recruit, as well as enable a quick response to any changes in local recruitment needs.

On the national level, awareness of the importance of recruitment within the American Library Association has been very helpful to the California effort. The ALA Office for Library Personnel Resources supplied background research and materials, and continues to provide support by acting as a clearinghouse for recruitment information and materials. ALA's continuing work in this area can provide an important source of assistance to other regional recruitment efforts.

CLSRP has managed to assemble several pieces into a cohesive whole. The survey results validated the need to target particular groups for specialized areas of practice. Attractive brochures were developed that mirror a confident, forward-looking profession, and workshops were planned to help librarians themselves establish productive relationships with career counselors and others who are good sources of applicants.

This recruitment project became an opportunity to present accurate and timely information about the field, the variety of careers available within it, and the value of the MLS degree in pursuing those careers. Librarians, having first-hand knowledge of the field, are best equipped to recruit effectively. They can speak convincingly of the value of a library school degree and passionately of their work. The California Library School Recruitment Project tried to increase librarians' awareness of their recruitment role, and put a grass roots recruitment mechanism in place that can be most responsive to California's needs.

References

1. Berry, John, "The Next Shortage of Librarians," *LJ*, Oct. 15, 1986, p. 4.
2. Brown, Lorene B., "A Crisis In Librarianship: The Decline in the Number of Minorities Entering the Profession Since 1979," paper presented at the meeting of the Black Caucus of the American Library Association, ALA Midwinter Meeting, Chicago, January 19, 1986.